Lectures
ON
THE SURGICAL TREATMENT OF ANEURISM
IN ITS VARIOUS FORMS.

Delivered at the Royal College of Surgeons, June, 1874.

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LECTURE V.—PART I.
POPLITEAL ANEURISM—CONTINUED.

MR. PRESIDENT AND GENTLEMEN,—I will now continue the observations made in my last lecture on the results of the treatment of popliteal aneurism in the hospitals of Great Britain.

With regard to the relative success of cases in which ligature is employed after the failure of compression, we have in our hospital table 44 cases in which the femoral artery was tied under these circumstances. Death followed in eight cases: in one from pneumonia and disease of the valves of the heart; in one from disease of the kidneys; in one from aneurism of the aorta; in one from erysipelas and pneumonia; in one from secondary hæmorrhage; and in the three other cases after amputation, there being in one of these cases also extensive disease of the heart, from which the patient died, while convalescent from the amputation. But there were also five other unsuccessful cases—viz., four in which amputation was performed with success, and a fifth in which the aneurism was known to have recurred two years after its apparent cure, but nothing is said as to its treatment then.

This makes the total number of cases in which the ligature failed when applied after the unsuccessful trial of pressure 13 out of 44,—a much higher proportion of failure than in those cases where the ligature was used at once; showing, in the cases where the ligature was used after the employment of pressure, 29·54 per cent. of failures, as against 19·48 where no pressure was employed. This is contrary to the general belief, which is founded mainly on the statistics collected by Mr. Hutchinson, and published in the *Medical Times and Gazette* for Nov. 29th, 1856. Those statistics were founded on the result of only 76 cases in all, of which 54 were treated by compression; and of these latter 46 were popliteal aneurisms, 24 successfully treated by compression, and 22 in which the compression treatment failed, amputation being had recourse to in 3 cases (and in all successfully), while the femoral was tied in the other 19, with 5 deaths. These figures differ slightly from Mr. Hutchinson's own tabulation, since he has included in the general total a very few cases in which the femoral was tied for femoral aneurism, whilst I am here speaking of popliteal aneurism only; but the same general observation applies to Mr. Hutchinson's own statement also—namely, that the figures are too small to bear the conclusion which has been based on them. They have been taken to show—and in this respect I must plead guilty along with other authors—that the treatment by compression has a favourable influence on the after-progress of cases generally, by enlarging the collateral circulation, and thus lessening the tendency to gangrene. From this cause it is held that the mortality after the ligature is lessened when it becomes necessary to tie the artery on the failure of compression. My own much larger numbers would show, to anyone who trusts implicitly in figures, that, on the contrary, the mortality of the operation of ligature of the femoral artery in modern practice has proved considerably less than that which was deduced from the records of practice in the last two generations, and that the proportion of deaths in cases which, after having been submitted unsuccessfully to pressure, are treated by ligature of the femoral, is greater than the average mortality of cases treated by ligature at once.

The latter conclusion need not surprise us. It is quite true that the application of pressure will probably enlarge the collateral vessels, and thus diminish the risk of gangrene. But it will also have somewhat exhausted the patient, and it may have produced a certain amount of injury to the vessels at the part compressed; and these disadvantages are to be set against any advantage which may be gained by the enlargement of the collaterals. But what is of far more importance to the general result is the fact—which seems to me certain, though it is very difficult to prove it from the notes of cases—that pressure succeeds in the best cases in which it is tried, and fails in the worst. Hence the mortality is likely from the first to be greater in the cases of failure than in those of success. Allowing this, let us look at the total statistical result of the cases which I have collected.

Of the 77 cases treated by ligature at once, the deaths were 11, and the total number of failures 15; showing a percentage of 14·3 of deaths and 19·48 of failure.

Of the 124 cases in which the treatment by pressure was undertaken, success was obtained at once in 66; in 44 of the others the ligature was applied and succeeded in 31; making the total number of successful cases 97, and the total number of failures 27. Of these 27, however, only 14 died—viz., 1 of an accidental attack of pleurisy, 5 after amputation with no previous ligature, and 8 after ligature. This makes the percentage of deaths 11·2, and that of failures 21·7. So that the total result of the compression treatment, as compared with that of the method of Hunter, has been that the percentage of deaths after compression has been a little less, but that fewer cases on the whole were completely cured; there being rather more in which amputation was performed, and a few who withdrew themselves from all further treatment—a class which of course does not exist on the other side.

On the whole, we may say that, allowing for accidental circumstances, the results of the two methods have been as nearly identical as is possible in a long series of cases extending over many years and a large variety of districts. And this, I must say, is to me a striking argument in favour of the more recent method.

When we heard, some years ago, on the first introduction of excision of the knee into general use, the statements which its advocates made as to its freedom from danger or any other drawback, and the abuse which was unsparingly heaped upon those who were somewhat reluctant to accept the new treatment as a proved advance on the old, we could not avoid doubting assertions which showed so little of the caution and moderation that ought to follow on experience in practice. Such rose-coloured views of operative surgery almost carry their own refutation. *Quodcunque ostendis mihi sic, incredulus odi.* So if I should come here to assert that the modern treatment of aneurism was free from all risks of failure, or that the Hunterian operation is other than a most efficient and successful method of treatment, I should feel that I was abusing your patience and doing little credit to the position in which you have placed me. The truth is that the treatment by compression very often fails, that it has difficulties from which that by ligature is entirely free, depending as it does on careful attention to a number of minute details on the part of the surgeon, and exacting sometimes from the patient prolonged submission to an irksome and distressing ordeal from which he knows he can withdraw himself at any minute. All this is quite different from the progress of a case after ligature. When once the vessel is tied the surgeon has little more to do in most cases, and the patient nothing. If the case does well, in fact, no further treatment whatever may be required; with the simplest dressing, or sometimes with no dressing at all, the wound is found healed, and the case is at an end.

That a method of treatment which has been so recently adopted into general use as that by pressure should have already attained the same amount of success as one which has been perfected by the experience of a century, during the whole of which time it has been the favourite study of some of the greatest surgeons of their time, is surely a most gratifying fact, and one which promises results still more successful. For we must remember that as we advocate the operation of excision of the knee in appropriate cases, in consequence of the prospect which it holds out of a more useful limb, although we believe that the danger is as great or greater than that of amputation, so we might fairly advocate the adoption of the compression treatment of aneurism in preference to the immediate resort to the ligature,

even if we believed that the one was no more successful, on an average, than the other. For though the difference is not certainly so great between the limb after compression and after ligature as it is between the result of an excision and an artificial limb, yet it is a very great difference indeed. The ligature of the main artery of a limb leaves the member weakened, ill-nourished, and often prone to obstinate and hardly curable ulceration. The main artery is always obstructed at one part, and usually at two (viz., the seat of ligature and that of aneurism); and the indirect circulation can never entirely replace the direct. The cure by pressure (whether indirect or direct) does not necessarily involve any such obliteration, as these preparations from St. George's Hospital museum show (vi., 121-2, 126). And to this must be added the far more powerful consideration, that in successful cases of pressure the patient is exposed to no danger whatever, and sometimes to really no inconvenience; whilst such cases, instead of being exceptional, are really, I believe, the majority, provided that the treatment is undertaken at an early period and the sac is well formed and complete.

The results, then, of this table fully support, to my mind, the view which I entertain, that the cure by pressure ought to be attempted in all ordinary cases of popliteal aneurism. When the sac is imperfect, or even very weak, it is better, I think, to resort to ligature at once; and if the aneurism is situated towards the knee-joint, or is rapidly growing, I do not advocate long perseverance in the attempt at compression; nor, indeed, do I think that in any case protracted compression is a benefit to the patient, or diminishes the percentage of failure.

These conclusions I believe to be justified by our present experience. But we must always remember that the methods of compression are being constantly improved. The triumphs of the rapid form of pressure under chloroform, the success of digital pressure, the rapid and painless cures sometimes obtained by flexion, are amongst our most recent experiences; and they are too striking not to attract all possible attention from practical surgeons, and to show that we do not know by any means all that may yet be accomplished by compression.

Another point which comes out from this table—and it is a most interesting one, and very gratifying to English surgeons—is the clear proof that it affords of the great success which attends the treatment of aneurism in this country. The whole number of cases of popliteal aneurism comprised in our table is 212—viz., 77 treated by ligature at once, 124 in which the compression treatment was adopted, 2 treated by the old operation, 1 by temporary ligature, 1 where a cure was effected without any operation, and 7 in which amputation was resorted to at once. The total number of deaths was either 29 or 30—14·1 per cent. only,—many of them due to other causes, such as disease of the heart or viscera. And, as I have shown above, almost all the cases were treated to their termination. I reckon that 12 recovered after amputation, and that in 4 cases only treatment failed, and, as far as is known, nothing further was done. All the rest (166 in number) were cured in one way or another, with preservation of the limb. No objection can be made to the series, such as has been often alleged, and justly, against statistical accounts of operations, as being founded on cases which were published partly on account of their success. These are unselected and continuous series of hospital cases, of all shades of severity, taken just as they occurred, and in the practice of London and country surgeons indiscriminately. Nor can the deadly influence of hospital atmosphere, of which we have lately heard a good deal, be traced in these authentic records of practice. They are taken indiscriminately; but of course cases of this sort are found mainly at large hospitals and in great cities, and the lists furnished by our large metropolitan and great provincial hospitals may fairly challenge a comparison of results with those which are obtained at country infirmaries. The whole collection forms a most pleasing record of what has been done in the treatment of a disease which little more than a hundred years ago was looked upon as so deadly.

But, however successful we may be in the treatment of popliteal aneurism at present as compared with past days, we cannot deny that there is still much room for improvement, and accordingly various plans have been introduced with the view of still further diminishing the mortality and reducing the terrors of the disease. The others are still in their infancy, and, as far as we know them, promise little success, as compared with compression exercised on the artery above and genuflexion. I proceed therefore to speak of these, and first of compression, the use of which we owe certainly in practice to the Irish surgeons of the last generation, although in theory the method had perhaps never quite passed out of memory since the days of Guattani.

I am very far from wishing to detract from the originality of the Dublin surgeons in their reintroduction of pressure for the cure of aneurism; yet it appears to me that the old idea of Hunter, that aneurisms were curable by pressure, derived by him no doubt from surgeons of an earlier date and a different country, and overlaid for a time by the brilliant success of the Hunterian operation, had never quite faded out of the minds of his followers. I was much struck by meeting with the following passage in a paper by Mr. Bransby Cooper in the second volume of Guy's Hospital Reports, published in 1837—a time when, according to Dr. Bellingham, there was less activity in the compression treatment than at any other period in the century. He is speaking of a case in itself of great interest, where the ordinary Hunterian operation for popliteal aneurism had failed, either in consequence of a high division of the artery or of too free anastomosis. An artery was tied lower down in the thigh, which was believed to be the femoral, just as it becomes popliteal; yet the pulsation persisted. But this pulsation was suppressed by direct pressure to the sac, and the patient ultimately recovered. The author makes the following remarks:—"From the beneficial effects of pressure upon the sac in this case, I am inclined to believe that the mechanical and medical treatment of aneurism, without operation, has scarcely been sufficiently tried by surgeons; and that pressure upon the sac, as well as upon the trunk leading to it, at the same time a perfect state of rest being strictly maintained, and the action of the heart and arteries being by medical means diminished, might often lead to such a deposition of fibrine in the sac as would produce a cure—an occurrence which does not unfrequently take place by the spontaneous efforts of nature." But such floating ideas were never reduced to actual practice until the Dublin surgeons took up the matter systematically, and proved by repeated trials the curability of popliteal aneurism by a method of pressure in which the absolute stoppage of the current was not necessary, where the point of its application might be varied, and the patient might be indulged with long periods of relaxation, while the sac was being gradually lined with firm fibrinous coagula. This is the method known as *incomplete interrupted* compression.

Still the compression was not always thus carried on; and it was, on the contrary, very early found that a patient could endure complete and continuous compression, with the result of effecting a more rapid and an equally stable cure. The case which is related by Dr. Rendle in the eighth volume of the St. Bartholomew's Hospital Reports is of considerable interest, both surgically, as being one of successful pressure on both sides for the cure of double popliteal aneurism, and also historically, as being, it is believed, the first successful case of the compression treatment of aneurism in a London hospital. It occurred under Mr. Stanley's care in June, 1847. The compression was total, and was continued uninterruptedly on one side from the middle of Saturday till the middle of the following Wednesday—four days. On the other side the compression was used for shorter periods, with intermissions—viz., for thirty-nine hours, twenty-four hours, twenty-four hours, and forty-eight hours, with intervals of about a day between. The instrument used was a light horseshoe tourniquet, which could be well borne after an unsuccessful trial of some heavier and more complicated apparatus.

The Dublin method, however, of partial and interrupted compression prevailed for some time in our hospitals. It was taught that, for the secure formation of coagula which would possess firmness enough not to melt away again, or to irritate the sac into suppuration, or to pass as embolic clots into remoter vessels, a certain degree of circulation through the tumour was, as a general rule, essential; and it was on this supposed necessity that Broca founded his doctrine of "passive" and "active" clots. Animated with a zeal for the new practice—to which we may say, without offence, that the *genius loci* imparted some tinge of patriotic feeling—the Irish surgeons worked steadily at all the details of instrumental compression, and certainly achieved, in the

early period of the treatment, a very remarkable success; so that Mr. Joliffe Tufnell was able to announce that out of 39 cases, which were all that had been treated in Dublin during the eight years which had elapsed from Dr. Hutton's original case in October, 1842, 30 had been completely and permanently cured; in 1 case the treatment was discontinued, the aneurism not increasing in size; in 2 the ligature became necessary, and was successful; in 3 amputation was successfully performed; in 1 case death occurred from erysipelas; and the other 2 died from coexisting disease of the heart. These cases were chiefly popliteal, but comprised also some instances of femoral and brachial aneurism.

The success of this first trial of the compression treatment was naturally followed by its general adoption in practice; but it is useless to deny that the expectations of surgeons in other countries were somewhat disappointed, for no average of cures at all approaching that quoted above has been obtained in London, nor, as far as I can learn, elsewhere. Mr. Hutchinson's table of published cases, occurring about that time in London, agrees in the main with the table which I have put before you—and which is made up of cases, published and unpublished, from the whole country—in showing that pressure has hitherto failed about as often as it has succeeded in the hands of British surgeons.

The results of pressure have been much more satisfactory, I believe, in Dublin than elsewhere in still more recent years; and if this be the case, there is but one explanation for it, as far as I can see—namely, that the treatment is better carried out there than elsewhere. If the facts lead to this conclusion, no puerile vanity on our part should make us hesitate to admit it. I have not been able to ascertain with accuracy the particulars of all the cases of aneurism of the lower limb treated by pressure in public or private practice in Dublin since the publication of Mr. Joliffe Tufnell's book—i. e., since 1851. Mr. Tufnell himself was kind enough to commence the collection of the facts, and he will, I hope, succeed in getting together notices of all the cases treated since the date of his last list, but at present the collection remains imperfect. Such as it is, however, I will give you the results. It consists of the recorded experience of most of the hospital surgeons in Dublin—Mr. Butcher being, however, one of the exceptions,—and, as I believe, their entire experience, whether in hospital or private practice.

The number of cases of popliteal aneurism treated by pressure was 23, and of these 17 were regarded as cured, though in one case perhaps the cure is doubtful, as consolidation was hardly complete when the account was published. Ligature of the femoral was practised twice only, and both times successfully. Three were amputated, in two with success; in the third the result is not stated. In the remaining case the treatment failed from the patient's indocility, and the case, if I understand rightly, was left incomplete.

If the results of these cases are really a fair statement of those obtained by Dublin surgeons in all the cases treated, they ought to attract our most serious attention.

The total number of cases of popliteal aneurism in Mr. Tufnell's previous table was 28, of which 21 were cured by pressure.

Adding the two lists together, we find, out of 51 cases of popliteal aneurism (including femoro-popliteal) treated by pressure, 38 in which the treatment succeeded at once, 3 in which the femoral artery was tied (in all cases with success), 5 in which amputation was performed (in four cases certainly with success, in the fifth the result is not given), 2 in which the treatment failed and was abandoned, and 3 in which the patients died. Death was caused in two cases by disease of the heart and lungs, and had nothing to do with the treatment. Still such cases would count amongst the deaths from ligature, and swell the percentage of mortality. In the third case death was caused by erysipelas; but in this case the treatment had been complicated by the employment of galvano-puncture, and the erysipelas attacked the punctures.

If we could trust to this list as being a complete and accurate statement of the facts, the inference would be that ordinary cases of popliteal aneurism can be treated by pressure with success in about three-fourths of the cases; and that in the remainder the ligature of the femoral will most likely succeed, or at any rate the patient may preserve his life at the cost of his limb, death being only a very exceptional circumstance apart from visceral disease. But I do not submit the list as being complete, though I trust that the researches of the Dublin surgeons will put us in possession of the facts in a complete condition.

Still there can be no question that failure has very frequently attended the treatment by instrumental compression in the hands of surgeons, gifted certainly with at least the ordinary amount of acumen, and more than the ordinary amount of zeal and patience. The very number of the mechanical contrivances which have been invented testifies to the difficulty of solving the problem which they propose to conquer. And the foundations of the theory announced by Broca have been altogether upset by the proof repeatedly afforded that a secure and permanent cure may be obtained by the rapid coagulation of the whole blood *en masse* into what he denominates "a passive clot." Such cures were early observed, since, in one of the earliest cases of compression, recorded by Tufnell, the whole process only occupied seven hours and a half; but they have become more familiar and have assumed more practical importance since the introduction of digital pressure, and of the rapid method of pressure under chloroform. There is now no doubt that such rapid cures are not exceptional, as they were at first considered; and that the filling of the sac with soft blood-clot, instead of being a dangerous or unfavourable proceeding, is usually the first step to a permanent cure. It is quite true that such soft clots sometimes melt away again and the aneurism, after apparent cure, resumes its pulsation, and may even begin to grow again; but this melting away of the clot is hardly ever accompanied by any other unfavourable symptom, and a resumption of treatment is generally quite successful. This being the case, it is no longer considered either necessary or prudent to dally with the disease by merely reducing the force of the circulation through the tumour, instead of suppressing it altogether; and therefore the first object of the surgeon is to discover by what means the requisite amount of force can be most easily applied, so as to keep the aneurismal sac free from pulsation until it is filled with coagula and its orifice so far obstructed as to resist further distension after the removal of the compression. It seems self-evident that the changes in volume which the tumour undergoes in the alternate compression and relaxation of the interrupted method of pressure must delay the final consolidation of the aneurism, even when they do not prevent it, which, I believe, is not unfrequently the case. Hence the desirability of obtaining definite consolidation in a single sitting (or in as few as possible) is as plain from the pathological anatomy of the tumour as it is from considerations of the patient's convenience and safety. It is not possible always; but very often it is, and the more so the more accurately the compression is carried out. The minutest care should be bestowed to see that no wave of pulsation ever passes through the tumour; and, if the patient's irritability demands it, he may be kept under the influence of opium, or even be sufficiently narcotised by chloroform or ether to bear the continuous and complete compression for as long as may be necessary. Before compression is commenced it is well to remember Dr. Carte's precaution—viz., that the circulation should be equalised by a few days' complete rest in bed on low diet, and so far reduced that an 8 lb. or a 9 lb. weight completely stops the pulsation of the aneurism.

NEW AIDS TO DIAGNOSIS.—At Rome a conference of the medical clinic of the University was held on the 18th of April to hear Dr. Collongues explain the mechanism and working of three new instruments devised by him, and entitled the pneumoscope, the dynamoscope, and the bioscope, which promise to be of considerable use in the practice of medicine. With the pneumoscope are produced artificially all the abnormal murmurs proceeding from the respiratory organs in a state of disease; with the dynamoscope may be determined the scale of all the sounds which are made at the digital extremities by the continuous movement of the tissues; while the bioscope registers with precision the heat, the electricity, and the functional activity of the skin. Prof. Baccelli and others of the medical faculty of Rome expressed themselves highly pleased with Dr. Collongues' inventions, which will soon be made known to the professional world.

Clinical Lecture ON PERINEPHRITIC ABSCESS.

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THERE is something more special about an abscess than as students we at first usually think. It is nothing new to say that all circumscribed suppuration is not abscess. Celsus, for instance, limited the term abscess to "latius vitium," though he well knows and says that his struma, phyma, and furnuculus are "minuti abscessus." But as students we read and hear about the suppurative stage of inflammation as a stage following the congestive stage and the plastic stage, until we might think all inflammations have these stages. But not every inflammation tends to run to abscess. Thus, as to the kidneys, Bright's disease is an inflammation which never goes on to abscess. In short, in the production of a great abscess there is something as special in its way as in the development of a sarcoma.

The disposition to form pus is a peculiar feature of the pathological history of some classes of animals as contrasted with others. Rabbits and dogs do not differ only in their dentition and fur &c., nor even, further, only in their taste for each other's flesh &c., but amongst their differences is this—that injuries to rabbits readily induce suppuration, while the injured textures of dogs readily resist suppuration; and just as some men are vegetarians and timid, like rabbits, while others are beefeaters and plucky, like dogs, so there are some men whose textures easily go down to pus on slight provocation, while other men's textures remain proof against similar provocation. Perhaps the difference between people who do grow large abscesses in their bodies and people who don't is chiefly one of breed, as appears the case in rabbits. But it is doubtless, as in the case of rabbits, also one of food; low-fed people, who get too little meat and oxygen, are the kind to produce abscesses.

Here, then, our patient B——'s history is in point. It seems he had hip-joint disease from his thirteenth to his eighteenth year, ending in destruction and dislocation of the joint; when twenty-two, rheumatic fever for six months, then cholera soon after severely, followed by jaundice sixteen years ago. (He is now forty-two.) Here is a history of a nature to predispose to suppuration; indeed, one may think him, from the hip disease, already scrofulous. Then, five years ago, we hear of a hard winter on his return to Poland, and an illness with great distress about his urinary system; at the same time a carbuncle on his neck. Then the urinary trouble increases after an interval of eighteen months, and in 1873 he passes much blood at three months' intervals, once half a pint, the flow usually lasting from five days to a week, the blood (he says) coming at first in a stream, then mingled with the urine. About this time his symptoms induced his medical attendants to frequently sound him for stone in the bladder. Eleven months ago the blood ceased to appear, and a thickish white matter was in the urine, which also disappeared, and his urine is now natural. But nine months ago a lump came in his right loin, where he had before had severe pain; great pain accompanied the formation of this lump. Hereafter our attention in reference to poor B—— must remain fixed upon that lump. It appears he felt the lump nine months ago.

Here you ought to notice that clinically abscesses often come nearer to tumours than to "inflammation." I don't know who first used the term "pus-tumour," but it is a very serviceable term if it remind you that what you long call a tumour may turn out to be pus. Notice well the *hardness* of a large patch in the act of suppurating. In No. 17 Clinical ward, recently, an abscess arising in the neck of a woman formed a large brawny mass of a nature which could not have been told from a solid growth by the touch alone. Notice, too, the *circumscription* of the mass of a commencing suppuration. In any place where the cellular tissue around is lax enough to allow you to feel its outlines, you will find such a patch remarkably defined. Then remember the possibly long duration of such masses, especially in the abdomen; a tumour there may last twelve months and then prove to be an abscess. And when you know that these great abscesses kill, like malignant tumours, by invading, converting, and slowly destroying important parts, and when you further notice that in such cases other abscesses are set up in the neighbourhood discontinuous with the first, then the principal characters of malignant formations are completely represented, and it is only the influence of authority and habit that would induce you to withhold the term "malignant pus-tumour." To illustrate this let me mention a case I saw with Dr. Cree the other day, where a disease of the sacrum had set up a large abscess; but in the psoas muscle high up, and in the abdominal oblique, close to the eighth costal cartilage, there were two other abscesses entirely discontinuous with the first. Here was no mere pyæmia; the distribution of the abscesses was different from that in pyæmia, and there was no fever.

It appears that poor B——'s lump was mistaken for a tumour, and a very unfortunate thing that has been for him; timely relief would have perhaps saved his life; as it is, I fear poor B—— and his abscess will come to an end together.

I will put this question to you, When this man came eight months ago to his doctor, and said he had passed bloody urine for some time, and now had great pain and a lump in his right loin, was it not his doctor's duty to explore the lump and ascertain whether it was pus or no? Well, I think under such circumstances an exploratory operation would be the doctor's duty.

Of course the doctor must be aware, as you doubtless all are, that an abscess in or about the kidney may result from calculous irritation of the pelvis of the kidney, or, indeed, from any other of those inflammations which, since Rayer invented the name, have been called "pyelitis." The occurrence of such abscesses is rare, so that it may be forgotten; but it is not so rare as to make it unimportant to remember it, or to entitle you to forget it. Indeed, abscesses in this region may be of several sorts, and either within or external to the kidney—*nephritic* or *perinephritic*.

You may meet sometimes with pure perinephritic abscess, or may be asked about it, so you may as well know that the name is given to mark the occurrence of abscess in the bed of the kidney; not arising from causes within the kidney, but coming on through a strain or injury, or "cold," or suppurative diathesis, or else following fevers, just as abscesses will arise elsewhere. Such perinephritic abscesses are distinguished by the absence of renal symptoms.

But suppuration about the outside of the kidney is, I believe, much more frequently set up by disease which has arisen within it. This class of cases has been longer recognised, but not so long as that third class of cases where there is a great renal abscess formed by a distension of the organ into a pus-sac without any external suppuration at all.

Now, knowing all this, could the doctor, when the patient came with his history of hæmaturia and complaint of painful swelling in the loin, have been sure what he was dealing with without tapping? Would he have been justified in making a deep free incision? Given the long history of symptoms of calculus and the presence of the "lump," must that swelling be inflammatory, and abscess? Certainly not. Cancer may coexist with and be caused by renal calculus, even if five years be too long a time for the cancer itself to have been growing and causing the bleeding. Remember here how very frequently gall-stones accompany cancer of the liver. In our museum you will see specimens of calculi in cancerous kidneys. In endeavouring to decide upon the presence of pus, you would observe as to rigors, high temperature, sweating, &c., but these symptoms may deceive you. Some three years ago I met with a case in which the temperature reached 103°, and severe sweatings and rigors were experienced, when the cause was rapidly-growing cancer of the liver, and no trace of suppuration existed. Hence an exploratory tapping with a trocar or grooved needle is required before you would proceed to make the freer opening that is indicated when the swelling is known to be an abscess. That such a free opening should be made in all cases of perinephritic abscess no one would now, I think, dispute, especially after the very encouraging

results obtained in operating on such cases by Dr. Bowditch, of Boston. But I would go further, and would equally readily open the pelvis of the kidney itself, if convinced that the state within it corresponded to abscess. About four years ago, at my request, Mr. Bryant cut into the pelvis of the left kidney in a case where the symptoms indicated nephritic abscess. Several ounces of pus escaped, and the patient was much relieved, though the extreme degree of scrofulous disease of the kidney led ultimately to death.

On the other hand, let us review the dangers that arise if the pus be retained and allowed to find its own way about in the neighbourhood of the kidney. I need scarcely remind you of the relations of the right kidney. You remember that it is situated with its upper half upon the diaphragm against the lower two or three ribs. Hence it is that in B——'s case we find the lower part of the right chest posteriorly yields crepitant sounds in his respiration. This, indeed, is a very important and threatening sign, for the bursting of such an abscess into the pleura or lung is to be feared, and this occurrence experience shows is nearly, but not quite, sure to be fatal. Then the colon runs down in front of the kidney towards its inner side, and many renal abscesses, taking advantage of this relation, have burst into the colon. Also the psoas muscle lies close to the inner side of the kidney, and the muscle is liable to be invaded by abscess around the kidney. The pus appears to enter along the nerves which pierce the psoas. At any rate the muscle may be quite destroyed by the spread of abscess within it and beneath the iliac fascia, the iliacus sharing its fate, until the pus protrudes in the upper part of the thigh, in the region of the psoas-iliac muscle, bearing forward and inward the femoral artery. This has happened in B——'s case, and you find such a protrusion in his thigh, into which protrusion air was observed to enter after the opening of the abscess in the lumbar region. This complication of psoas abscess is a very grave addition to our patient's danger. It has been observed before. Thus, in a case in Dr. Prout's work, the psoas muscle was quite destroyed by a renal abscess. It would have been far better for B—— if the abscess had taken the course backward through the quadratus lumborum, which is the most favourable direction, and is that which is chosen when we try to reach the abscess with the knife. In one of my out-patients some years ago, after pain and hæmaturia, pus appeared over the sacro-iliac synchondrosis of the side where the pain had been suffered. Such an abscess may fail to perforate the transversalis or iliac fascia, and hence may spread in the subperitoneal cellulosity, and so go into the false or even into the true pelvis, or into the peritoneum. The right kidney, you know, rests against the liver by a greater or smaller portion of its anterior surface; and thus it is that B—— had slight jaundice, relieved when Mr. Davies-Colley opened the abscess; three pints and a quarter of pus then escaped, and the liver at once descended about an inch. The right kidney also touches the duodenum; but I am not aware of any practical results having followed from this.

When thus speaking of the usual relations of the right kidney, it may be as well to notice that, in different subjects, you find them very inconstant. The liver may not touch the kidney at all, for instance—indeed, the kidney is but imperfectly held in its place; and you are aware that this laxity of position and relations culminates sometimes in the entire dislocation of the organ, and its appearance as a "floating" or movable kidney. But the distension of the kidney or of its site by abscess brings the purulent collection into all these relations, none of which should be forgotten.

There is, however, one other relation which I do not remember to have ever heard made the subject of remark, but which is indicated in B——'s case, and which I have met with before, especially in that case operated on by Mr. Bryant, and alluded to before in this lecture: I mean the extension of the inflammatory thickening about the abscess until it involves the cellular and nervous textures around the vena cava and aorta, and so causes symptoms of paralysis of the abdominal sympathetic, producing most distressing flatulency and irregular constipation. There is great tympanites and much suffering from this complication. It is more likely to be severe when the disease is of the left kidney. It is worth noticing that in none of the cases in which I have observed it did the conditions of Addison's disease appear, though perhaps the most learned of all the many works on Addison's disease led up to the conclusion that the symptoms of that malady are due to secondary implication of the abdominal sympathetic through extension of inflammation from the capsules.

B—— has been very much relieved by the operation, and is now taking his nourishment well. He is of course placed on the best system for sustaining his tone and nutrition that we can devise, but the vast extent of the abscess makes his prospects very doubtful indeed, and, as I said before, renders it exceedingly unfortunate that he did not obtain more timely relief.

ON

RECENT IMPROVEMENTS IN THE DETAILS OF ANTISEPTIC SURGERY.

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(*Continued from p. 470.*)

I HAVE NOW to speak of improvements in our practice connected with the introduction of new antiseptic substances.

About three years ago my friend, Dr. Stang, of Sorweg, in Norway, being on a visit to Edinburgh, informed me that a new antiseptic had been discovered in Sweden, and was already extensively used in that country for the preservation of articles of food, and also as an application to wounds. The "aseptin," as it was termed, was in two forms, a powder and a liquid, the latter receiving the additional title of "amykos." The composition of the preparations was kept secret; but there was little doubt that they owed their virtue to one common ingredient; and he promised to send me samples of them, in the hope that they might prove useful in carrying out the antiseptic principle in surgery. This promise he at once fulfilled on returning home, at the same time telling me that the active principle of both the articles had been ascertained to be boracic acid, the virtues of which had been discovered by Mr. Gahn, a chemist in Upsala.

It happened that I was just then suffering from onychia of the little finger, attended with excessive fetor, and at the same time exquisitely sensitive, so that even a very weak watery solution of carbolic acid caused almost intolerable pain, while it entirely failed to subdue the pungent ammoniacal odour. I at once gave a trial to the amykos, using it just in the same manner as the former lotion, dropping some of the liquid upon the tip of the finger and wrapping it in lint soaked with the same fluid and covered with gutta-percha tissue. The drops of the amykos, as they fell upon the sensitive surface, caused not the slightest twinge of uneasiness; yet when I changed the dressing, after the usual interval, I was surprised to find an almost entire absence of fetor. Here, then, I had at once sufficient evidence that the new antiseptic, when employed in the form of watery solution, was both highly efficient and much less irritating than carbolic acid.

Boracic acid was then little more than a chemical curiosity. But I succeeded in obtaining in Edinburgh a sufficient quantity to enable me to test its properties unmixed with other ingredients. A striking instance of its antiseptic efficacy as well as of its therapeutic value was at once presented by a case of pruritus ani of upwards of ten years' standing. The affected part was washed with a saturated watery solution at bedtime, and a small piece of lint soaked with the same lotion was applied and retained during the night. The result was immediate relief from the accustomed irritation, and, what struck me as extremely remarkable, the bit of lint, when removed next morning, was free from smell. It was afterwards found that even the slight mechanical irritation caused by the presence of the lint might be avoided; for the mere application of a few drops of the watery solution last thing at night, the part being left moist with the liquid, proved completely efficacious; and this simple treatment being continued for a while, the obstinate tendency to irritation gradually disappeared, while

the thickening of the folds of skin, which had been of several years' duration, entirely subsided.

Another example of the usefulness of the new remedy was furnished about the same time by a case of inveterate eczema of the ankles in a lady above the middle period of life. The water dressing which she used being removed, a very unusually fetid odour was exhaled from the moist scarlet surface, which, tender as it was, she was impelled to scratch by an intolerable sense of itching. Thinking that here, as in the case of pruritus, the irritation caused by putrefaction might be a main element in the obstinacy and discomfort of the complaint, I gave the boracic acid a trial, substituting a saturated watery solution for the water in the dressing previously employed. The effect was at once to correct the fetor, but in this case the application occasioned a good deal of persistent uneasiness in the sensitive surface. The patient, however, persevered with the treatment, and in a short time the ankles were both in a sound condition, which I was lately glad to learn had proved permanent.

But, striking as were these evidences of the antiseptic virtue of boracic acid, I knew well that in the form in which I had hitherto tried it—namely, in lint soaked with a watery solution—it could not answer for a permanent antiseptic dressing under circumstances where there is at all a free discharge. For the putrescible fluid soaking into the lint would drive the antiseptic before it, and occupy its place, and as soon as this had occurred throughout the thickness of the dressing at any one point, putrefactive fermentation would be free to spread into the wound. In order that the dressing might be trustworthy it was necessary that the boracic acid should be in some way stored up in it, as carbolic acid is in the resin of the gauze, so that it could not be at once washed out from it by the discharge. A ready means of attaining this object was presented by the fact that the acid, though but sparingly soluble in water at ordinary temperatures, is pretty freely dissolved at the boiling point. Thus, at 60° Fahr. water takes up only about a twenty-sixth part of its weight, and at 100° less than a sixteenth, but at 212° more than a third. Hence if a piece of lint is dipped in a saturated solution near the boiling point, it absorbs a great deal of the acid, and, after being allowed to dry, it is found to weigh about twice as much as it did originally, the weight of the crystals disseminated through it being nearly equal to that of the lint itself. If therefore this "boracic lint" is used as a dressing the discharge may soak through it repeatedly without dissolving out all the acid, although it takes up in its passage a sufficient amount to render it antiseptic. It is further a fortunate circumstance that the crystals of boracic acid, instead of being hard and harsh, like most crystals, are soft and unctuous, and therefore occasion no mechanical irritation of the skin.

The boracic lint has proved very valuable in the treatment of ulcers of the legs or elsewhere. In dealing with them, the first step is to cleanse the sore and the surrounding skin once for all from septic impurity. This is done by treating the surface of the sore freely with a solution of chloride of zinc (forty grains to the ounce), and at the same time washing the integument with a strong watery solution of carbolic acid, which is used on account of its remarkable power of penetrating the epidermis, while for the sore itself the solution of the chloride appears to be more efficient. This preliminary step having been taken, the boracic dressing is at once employed as follows:—A piece of oiled silk protective, of sufficient size to cover the sore and slightly overlap the surrounding skin, is dipped in the boracic lotion (a saturated watery solution) and applied, and over this a piece of boracic lint large enough to extend for an inch or more beyond the protective on all sides, the whole being retained in position with a bandage. It is well to soak the boracic lint with the lotion before putting it on, not for the sake of adding more of the acid, but because the lint, when applied moist and allowed to dry on, is less liable to slip afterwards from its position, and also for the purpose of purifying the surface of the lint itself, which in the dry state has no power of acting upon septic dust adhering to it, the acid which it contains being non-volatile, and, therefore, only acting when in solution.

In this dressing the protective serves its usual purpose of preventing as much as possible the direct action of the antiseptic upon the healing part; and although boracic acid interferes with cicatrisation much less than carbolic acid does, the epidermic development proceeds more quickly when it is excluded, while the formation of pus due to the stimulation of the surface of the granulations by the acid (antiseptic suppuration) is of course diminished; and the less the discharge, the less frequently is it needful to change the dressing. The protective also keeps the surface of the sore moist, and so prevents the discharge from being pent up and causing inflammatory disturbance from tension, as is apt to be the case beneath the crust of inspissated pus in a dry dressing. The lint is also kept from sticking to the sore and tearing off the newly-formed epidermis when it is removed.

But it must always be remembered that the protective, in proportion to the efficiency with which it discharges its function of preventing the irritation of the acid, excludes also its antiseptic virtue, so that if putrefactive material exists beneath it at any one point, the septic fermentation will spread over the whole sore. Hence the necessity for having the boracic lint to extend on all sides beyond the oiled silk, for if the protective were to escape at any one place from under cover of the antiseptic layer, it would necessarily conduct putrefaction inwards beneath it. Hence also the importance of adopting thoroughly efficient means of purifying the sore as a preliminary measure.

But if those points are attended to, this mode of dressing will be found to yield excellent results. The epithelial development, protected from needless disturbance, proceeds at a rate altogether unknown under water-dressing, and cicatrisation will often advance steadily in sores which, under ordinary treatment, cannot be got to heal at all; as when, through the unyielding character of surrounding parts, the shrinking of a large granulating surface has put the imperfect textures of the sore upon the stretch, and thus so reduced their vital power as to make them liable to ulceration or sloughing under the influence of stimuli which fail to arrest the healing of an ordinary vigorous sore, such as solutions of astringent salts or the degree of putrefaction that occurs in water-dressing within twenty-four hours. This application also saves trouble to the surgeon, for if properly used, it may be left unchanged for a period varying from two to five days, according to the amount of the discharge.

This last circumstance, together with the unirritating character of the dressing, makes it peculiarly useful for skin-grafting. The manner in which I have for a considerable time carried out Reverdin's beautiful principle is as follows:—The skin of the inner side of the upper arm having been lightly washed with 1 to 20 watery solution of carbolic acid to purify its surface, a thin layer of the integument is shaved off with a very sharp knife, so as to take barely more than the epidermis, scarcely drawing blood or causing pain. The little shaving is placed upon the thumb-nail of the left hand, moistened with a drop of the boracic solution, and bits not bigger than pin's heads are successively cut off and laid upon the surface with which they are to unite, by taking up each graft upon one side of the point of the knife and stroking the other side of the instrument upon the granulations so as to leave the graft behind. Care must be taken that the deeper surface of the graft is placed downwards, but this is readily done from the fact that the shaving always curls up with the deeper aspect on its concavity.

It is an interesting pathological fact brought out by this mode of procedure, that the surface of healthy granulations is as prone to adhere to freshly cut perfect tissues as granulations are to coalesce with each other, or the sides of a recent wound to unite by first intention. The practice often followed of cutting beds in the granulations to receive the grafts, very inconvenient from the bleeding which it involves, is therefore wholly unnecessary. The several pieces of epidermis, of which twelve are furnished by a slice a sixth of an inch square, if simply applied to the uninjured surface of the sore, will probably be found to afford as many starting points for cicatrisation, provided that the granulations are healthy to begin with, and that all needless irritation of the grafts is avoided. As regards the former condition, it is a great mistake to wait till healing has considerably advanced, and the sore has become already stretched and weakened by its own contractions; and, as regards the latter point, the avoidance of needless irritation, the stimulus of putrefying materials must be got rid of by thoroughly purifying the sore as a preliminary measure, while the irri-

tation of the antiseptic itself is reduced to a minimum by the dressing employed. In order to make sure against septic contamination during the process of grafting, it is well to cover the sore as soon as it is exposed with a piece of muslin dipped in the boracic solution, and uncover successive portions for the application of the grafts. Then, as each graft is put down, it is covered at once with a small piece of protective dipped in the lotion, and at the conclusion of the process, any parts of the granulating surface remaining exposed are covered in either by separate pieces of protective or by a general piece over the whole, as no harm is done by the layer being double. Boracic lint wrung out of the lotion, and well overlapping the surrounding skin, is then applied, two layers being used at the more dependent parts if the sore is large and much discharge expected, and a retaining bandage is put lightly on. This dressing is left untouched for two or three days; and when it is changed, all the protective will be found to come off as one piece adhering to the lint, but not sticking at all to grafts or granulations, which are covered with a layer of pus or lymph. This being free from putrefaction or any other irritating property, there is no need to wash the surface of the sore, a process which might disturb the grafts; but without any delay a fresh piece of dipped protective is applied, and over it the moistened boracic lint, any crusts of inspissated discharge on the surrounding skin being afterwards washed away at leisure with the lotion. When the dressing is next changed, the red ring of youngest cicatrix will probably be already apparent around each white epidermic islet.

The trifling wound on the arm which furnished the grafts is treated, like the sore, with protective and boracic lint, and, if these be properly secured, a scar will be found in its place when the part is exposed after the lapse of a few days.

To be able thus to treat recent abrasions with a single application, which may be left undisturbed for an indefinite period, is often a matter of great convenience, especially in the case which so frequently presents itself where such superficial injuries are present as complications of simple fracture. Here, without antiseptic management, troublesome sores are liable to form, requiring frequent disturbance of the splints to gain access to them for daily dressing. But after washing the part with (one to twenty) carbolic lotion, and applying the dressing of protective and boracic lint, the abrasions may be dismissed from further consideration.

It is, of course, essential for the success of this dressing that it should be kept accurately in position. In the case of abrasion in fracture this is probably ensured by the presence of the splints, and in large sores upon the legs it is readily done by means of a bandage, especially one made of the antiseptic gauze, which, as before observed, is less apt to shift its place than a common cotton roller. But for small dressings in any situation, and especially about the face, where bandages cannot well be used, it will be found very convenient to fix the boracic lint by means of collodion applied to the edges of a piece of cotton cloth of open texture, sufficiently large to overlap the skin on all sides around the lint. The cloth used for making the antiseptic gauze answers the purpose very well, only it must be employed unprepared, because the resin and paraffin of the prepared gauze would prevent the ether of the collodion from evaporating. In absence of the unprepared gauze, a piece of ordinary rag may be used, if the edges are frayed out sufficiently to give the collodion a proper hold upon the skin.

The boracic lint may often be employed with great advantage as a moist application, soaked with the boracic lotion, and covered with gutta-percha tissue or oiled silk. Foul ulcers, coated with a layer of putrid slough or lymph, if dressed daily in this way, will probably soon assume healthy characters; and when this has occurred, a comparatively slight washing of the sore with the chloride-of-zinc solution will be sufficient for the final purification, preliminary to using the dressing with protective and dry boracic lint; whereas if the chloride is used at the outset, while the sore is covered with its foul crust, a very energetic application is required, entailing hours of considerable uneasiness to the patient.

In deep burns, where from any cause the sloughs have been allowed to putrefy, the moist boracic lint will be found an excellent dressing. In a case lately under my care, the gluteal region having been extensively and deeply burnt, the vicinity of the perineum made it impossible to keep out putrefactive fermentation. Here accordingly a daily dressing of lint, steeped in one part of carbolic acid to thirty of olive oil, and covered with gutta-percha tissue, was employed; but, in spite of this application, the air of the room was pervaded with a strong putrid smell. I therefore substituted for the carbolic oil a dressing of moist boracic lint, and, at my next visit, was glad to find the apartment free from unpleasant odour, although the sloughs having not yet separated, the emanations would doubtless have been even more offensive than before had the previous dressing been continued. I was, therefore, now able to direct that the boracic lint should be changed only every other day, instead of having the patient disturbed and pained by a daily dressing. And, further, when the sloughs had separated, feeling sure that, by virtue of the boracic acid stored up in the lint, putrefaction would be less advanced in three days under it than it would have been in twenty-four hours under water-dressing, I felt justified in allowing this still longer period of tranquillity.

This is a sufficiently striking illustration of the value of the boracic lint as a moist application in all circumstances in which putrid sloughs are present in parts superficially situated, so that the antiseptic can gain access to them. And while the boracic acid gradually dissolved out of the lint by the discharges has this powerful effect in diminishing or arresting putrefaction, it also generally allows cicatrisation to proceed kindly in such parts as are already cleansed of sloughs, though the healing is not so rapid as where the direct action of the acid is excluded by protective over a purified sore.

If much inflammation is present around putrid sloughs, wet boracic lint applied to the sloughs, and a poultice outside this and extending over the whole inflamed integument, will be found to work extremely well. The boracic lint may be left undisturbed for twenty-four hours or more, while the poultice is changed as often as may be desired.

(To be continued.)

CLINICAL STUDIES AND OBSERVATIONS IN THE WESTERN INFIRMARY OF GLASGOW.

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I.—PNEUMOTHORAX.

THE interesting clinical questions arising out of the relations of pneumothorax with pleurisy, and of both of these with tubercular disease, give to the facts of the following case a certain amount of importance quite apart from any special inferences which may be ba on the facts. I will therefore endeavour, in the first place, to condense into a few paragraphs a narrative involving numerous detailed observations at different dates, recorded in the journals of the Western Infirmary, and illustrating—1st, a diagnosis of acute pleurisy with effusion; 2nd, of pneumothorax *within a limited area* (its relation in point of date to the pleurisy being undetermined); 3rd, after a period of very considerable danger from the acute symptoms, a history of great improvement, amounting for the time being to a very complete convalescence, with marked diminution, if not disappearance, of the signs of pneumothorax. The case having up to this point ended favourably, the tubercular origin of the disease cannot be affirmed except upon grounds of probability; but the facts for and against this view of it will appear in the course of the narrative.

Richard C——, aged thirteen, a boy employed in a coal-pit, and there exposed to cold and wet in an unusual degree for a boy of his age, was admitted on Nov. 25th, 1874, complaining of pain on the right side of the chest, apparently of about a fortnight's duration. He passed a very restless and disturbed, almost delirious, night on admission, and

was unable to give any detailed account of his illness; but it appeared that, with the exception of a suppuration of the ears for a few days before admission, no fact could be elicited tending to the belief that his health had been otherwise than good prior to the acute illness for which he was admitted.

The symptoms and physical signs on admission were those of pleurisy with moderate effusion on the right side of the chest. Percussion was dull from an inch above the nipple downwards in front, and absolutely dull from the level of the eighth dorsal vertebra downwards on the posterior aspect of the chest. Tubular breathing, by no means of the most marked order, was heard about the limits of the dull area on both aspects of the chest; the breath sounds being generally feeble on the right side, while on the left they were exaggerated or puerile. Traces of indefinite râle (friction or crepitation?) were heard in the right interscapular region, and under the right nipple. There was no appreciable bulging of the intercostal spaces, nor increase in the circumference of the side. It was, however, considered open to question if the heart and liver were not a very little displaced. There was no expectoration. The axillary temperature reached 103° F. on the evening after admission, and the tongue, pulse, and respiration combined to give the idea of a high degree of febrile oppression.

On the 29th of November there appeared to be a diminution in the symptoms, or even an approximation to a crisis, the temperatures, both morning and evening, being 99·6°, and the pain and oppression much less. The improvement, however, though real so far as it went, was deceptive. On the 2nd of December it was found that he had passed a very disturbed night, with a great deal of pain, the temperature rising to 102°, the apparent oppression of the respiration being also greater than at any period since admission. On the evening of the 3rd of December the temperature was 103·6°, and he had again much pain, only partially relieved by fifteen grains of hydrate of chloral. It was on Dec. 2nd that the signs were first discovered of a limited pneumothorax, and several examinations afterwards gave the most ample confirmation to the diagnosis, although after careful consideration of the whole facts, it remained uncertain if the date of the first discovery of the new physical signs could be regarded as the real date of the first occurrence of pneumothorax. The signs referred to, as determined by several most careful examinations in presence of the class, were:—1. A limited area of *highly tympanitic* percussion, above and below the right nipple, in the recumbent posture. 2. In the same area, or nearly so, *perfectly dull* percussion in the semi-erect posture. 3. In the recumbent posture, tubular respiration approximating to amphoric in the same area. 4. At a somewhat later date (Dec. 7th), and still apparently within the same limited area, metallic succussion sounds of the most distinct kind, produced by gentle succussion in the recumbent posture, with the ear placed directly over the right nipple, there being no widely diffused splashing sounds, or at most only a fainter trace of them at the back, close to the fifth and sixth dorsal spines. 5. At a still later date (Dec. 11th, and then *certainly* for the first time) distinct local bulging of the third right intercostal space, from the margin of the sternum to the nipple, and perhaps in a slighter degree of the fourth and second intercostal spaces. These signs, thus rapidly and successively developed, taken in connexion with the signs of fluid effusion at the base of the right lung, and the persistence of a very appreciable amount of respiratory murmur over the upper part, both before and behind, were considered as leading to the diagnosis of *a cavity, partially air-filled, in the right pleura, corresponding with the position of the middle lobe anteriorly, and circumscribed more or less by adhesions over the upper and back part of the lung.*

The general narrative of the progress of the case after the pseudo-crisis in the end of November, and the renewed pain and fever of the 2nd and 3rd of December, is one of daily oscillations of temperature, extending to 2°, 3°, or even 4° Fahr., the morning temperature being usually about 100° and the evening from 102° to 103°; there being on one or two occasions a remission lasting over two, or at most three days, but no real or satisfactory improvement up to the 27th of December—i.e., for a period of a month after admission, and more than six weeks after the apparent origin of the acute symptoms. During the latter half of this period the chest symptoms were, it is true, somewhat less urgent than on admission; but a new cause for anxiety arose in an abscess at the back of the right ear, which from the fetor of its discharge, together with the depressed condition and obvious constitutional suffering associated with it, rather strongly suggested the idea of septic poisoning. At length, however, the abscess healed, the pains in the chest and respiratory oppression became notably less, and, for the first time since admission, on the 27th of December, the boy declared himself very decidedly better, sitting up in bed and looking bright and cheerful, in marked contrast to his former melancholy appearance. From this period onwards, the temperatures, though not always rigidly within normal limits, never exceeded 100°, and only occasionally 99°, and the whole character of the symptoms altered from that of grave and dangerous acute suffering, to that of a slight, dry, painless cough, which occasionally still troubled him at night, without, however, interfering with a general state of almost complete well-being, and a much improved condition of the strength and facial expression. In the midst of these satisfactory indications, *the succussion phenomena ceased to be audible on the right side; but highly amphoric breathing, with metallic echo of the voice,* were ascertained to be present in the right side by repeated examinations in the beginning of January, 1875; and *it was only on the 13th January that Dr. Finlayson, on going to demonstrate these phenomena to the students, found them for the first time entirely absent.* Three days afterwards a careful examination in detail confirmed this observation, and further showed that all the phenomena, both of percussion and auscultation, indicated a diminution of the pleuritic effusion, and a certain amount of return of the respiratory murmur, even in the lower lobe of the right lung. *A comparison of two cyrtometric diagrams of the chest (bearing date Nov. 27th and Dec. 30th) shows in the latter one a well marked retraction of the right side of the chest, to the extent of a difference of* 1½ *in. in the semi-circumference, the two sides on admission having been, as nearly as possible, equal and symmetrical.* It should be added that, with the exception of a few râles (probably in part, at least, friction sounds) in the earlier stages, and some traces of absolutely doubtful râle in the right interscapular space afterwards, there had been nothing observed throughout which could give any countenance to the theory of a considerable cavity within the lung itself; and, further, *expectoration had from first to last been either entirely absent or so utterly insignificant as not to admit of description.*

In the facts above narrated we have positive evidence of a pneumothorax which, originating in connexion with the symptoms and physical signs of acute pleuritic effusion, is nevertheless controlled and limited by adhesions to a very remarkable degree, so much so as to add, in all probability, but little to the intensity of the dyspnœa, or to the mechanical distension due to the pleurisy itself. It remains to be considered what was the relation of the pleuritic effusion to the pneumothorax in this case, and of both of these to the limiting adhesions which we must presume to have existed, possibly prior to both.

It will hardly be disputed that pneumothorax, when it is not traumatic, and not dependent on the perforation of an empyema into the lung, is in an immensely preponderating proportion of cases the result of tuberculous antecedents; the softened or excavating tubercle producing perforation of the pulmonary pleura, and thus escape of air into the pleural cavity. In his argument for the recognition of a "perforation stage" as a *fourth* stage of pulmonary phthisis, Dr. Scott Alison has well said that "but for pleural adhesions in the third stage, perforation would be almost unavoidable."* But while thus recognising accurately the conditions that tend to pneumothorax, as well as those which ordinarily impede its actual occurrence in tubercular disease, Dr. Alison appears to me to have stated the relation of this incident to the course of tubercular disease in a manner likely to mislead. For in claiming for the "perforation stage" of phthisis, the position of a fourth, or terminal stage (by implication usually or always fatal), he has in my opinion excluded from consideration, or at least apparently neglected, a far more important class of cases (clinically speaking) even than those of pneumothorax in the last stage of tubercular disease of the lung; those—namely, in which pneumothorax occurs *early* in phthisis,

* The Physical Examination of the Chest in Pulmonary Consumption, &c. pp. 270. London, 1861.

producing consequences more or less grave, but not always, perhaps not even generally, so grave as immediately to precipitate the fatal course of tubercular disease. It is to this last class of cases that I desire now to call the attention of the readers of the present paper.

In the case of Richard C——, I do not consider it possible to declare with absolute certainty the nature of the pulmonary lesion on which the pneumothorax depended, there being no direct evidence as to the state of the lungs prior to the pleuritic attack for which he was admitted. But the occupation of the boy was such as to expose him in an eminent degree to the causes of tubercular disease; and the absence or insignificance of expectoration throughout a severe and acutely inflammatory attack, as well as the favourable ending of the attack, make it quite clear that, if tubercular at all, he must have been in one of the earliest stages of phthisis, and not in any "fourth stage," properly so called. Does the case, then, admit of this interpretation? Is it possible to regard it as a case of *very early* tubercular phthisis, with perforation of the lung, perhaps from a very limited deposit of softened tubercle? Is such a view of its origin consistent with the apparently acute development of the disease, the association with pleurisy, the limited area, the favourable progress? To all these questions my experience leads me to give an affirmative answer. But, in order to make the grounds for these opinions apparent, it is necessary to make some further statements bearing on the pathology of tubercular pneumothorax, and resulting from the general study of the subject, rather than from the particular case now before us.

With Dr. Scott Alison, I believe it is a strictly correct statement to say that pneumothorax *tends* to occur in every case of tubercular disease; and that in almost all cases which reach the stage of excavation it would inevitably occur were it not for the presence of adhesions. I have, therefore, no difficulty in admitting his view as to the frequency of this accident in the latest stages of phthisis; indeed, I have shown elsewhere that not only does it frequently so occur, but that pneumothorax, under these circumstances, may occur with such insignificant consequences that it can hardly be said appreciably to modify the course of the disease, the symptoms being (as I have said of one such case) those of pure phthisis, and the discovery of the pneumothorax a mere accident, as it were, of the physical examination.* Indeed, it is no exaggeration to say that some of the least complicated cases of phthisis (having regard to symptoms only) that I have ever watched to a fatal termination have been cases in which the fact of pneumothorax has been ascertained some time before death, and in which, even after ascertaining the fact, it has been difficult, if not impossible, to supply from the patient's statements the true history of the perforation. It has even been possible, in some of the cases I have thus witnessed, to entertain the view as at least a possibly true one, that the course of the phthisis may have been *favourably* modified by the pneumothorax; but, not to press a doubtful hypothesis, I will say only that, in some of them, the course of the disease has been much slower, and the fever, pain, and dyspnœa much less, than could have been at all expected *a priori* under the circumstances.

No doubt there are cases, even more numerous than these, in which the accident of pneumothorax is discovered or suspected in the midst of those serious accidents (amounting often to agonising pain, orthopnœa, and sudden death), which are commonly assigned to it as its ordinary symptoms. But it is the very extreme contrast between the numerous cases of this kind and those of what I have called *practically latent* pneumothorax that gives rise to the need of a more extended clinical and pathological investigation, wherewith to bridge the chasm, as it were, involved in the supposition of a well-marked mechanical lesion, presenting, on the one hand, an equally well-marked clinical history, and, on the other, no separate and independent clinical history at all.

And if it were the case that practically latent pneumothorax were found to concur with symptoms of the *final* stage only of phthisis, it would be possible to suppose that the latency of the former affection depended upon that remarkable absence of complaint which sometimes attends consumption to the last, or that the still more severe sufferings from the hectic fever, cough, &c., proper to the tubercular disease, had obscured the symptoms of the rupture of the lung. But this theory will by no means account for the cases of pneumothorax which have probably occurred to every hospital physician of large experience, in which patients affected with the signs of this lesion in a very manifest way have been able to walk about, sometimes to walk long distances and up considerable acclivities; have been totally free from orthopnœa, and free even from considerable dyspnœa; have been in tolerably good condition, and apparently almost devoid of fever and acute suffering of every kind. In such cases, the tubercular element, if present, must have been in comparatively an early stage or in small amount. Or if, as in at least one of my cases, the *constitutional* antecedents of phthisis have been well developed; if the patient has a scrofulous history, much emaciation, clubbing of fingers, and a strongly marked hereditary taint, while at the same time hardly anything can be discovered in the chest besides pneumothorax, and this concurs with the slightest possible *local* symptoms; then the paradox is by no means diminished, and we have to discover how it is that under these circumstances the symptoms are so mild, while in other cases they are so fearfully and immediately dangerous or fatal.

I do not by any means affirm that the whole of these strange variations can be explained, and the whole symptomatology of pneumothorax rendered perfectly simple by anything that I have now to state; but I believe it will be found that a considerable proportion of the anomalies above referred to will yield to a more extended and scientific study of the precise mode in which, in different cases, the circumstances of an attack of pneumothorax are modified by previously existing conditions of the lungs and pleuræ, or (to give this expression more exactness) by limiting adhesions either of old date, or rapidly arising in the neighbourhood of the perforation. To begin with the appreciation of the more chronic lesions antedating the pneumothorax, it is, I think, unquestionable that the most rapidly, or rather instantaneously, fatal instances of perforation of the lung occur when the *opposite* lung is in an advanced state of disease from tubercle, or from some of its inflammatory complications of old standing. But it is equally true, though perhaps less apt to be formally noted, that a rapidly fatal issue in pneumothorax is, *cæteris paribus*, much more likely to occur when, in addition to a considerable or extreme amount of disease on the *opposite* side, there is the *least possible* amount of disease that is consistent with the fact of perforation on the *perforated* side. And the reason of both of these contrasted facts is evident. When there is extreme disease of one lung, it follows that the patient is much more absolutely dependent upon the other for respiration than when the amount of disease in both is more equally balanced. But not only so; when, in addition to the unequal balance of disease above supposed, we have the sounder lung *almost free from disease* (except at one or two spots), its sudden and complete collapse from perforation occurring at one of these diseased spots is almost inevitable when, during the alternate play of inspiration and expiration, the weakened tissues are exposed to the strain of unequal pressure. When, on the other hand, tubercles have invaded the sounder lung to a considerable extent also, it becomes increasingly probable that firm adhesions will have been formed over a considerable surface; and these, both by operating as a protection against perforation, and by limiting its results, will militate against the extreme suddenness of the fatal issue. And, lastly, the more serious and directly fatal consequences of pneumothorax will be reduced to a minimum if the perforation shall have taken place in a lung previously adherent over a considerable part of its surface, even if the adhesions shall have accompanied extensive disease of the lung itself, provided that a sufficient amount of free breathing area is secured in the vesicles of the opposite lung.

A careful consideration of these facts, based upon pathological experience, has led me to attribute, in many cases, a well-marked conservative influence (in respect of pneumothorax) to the pleuritic adhesions which accompany, and often precede, the actual formation of tubercles in the lung; which in almost all cases precede the softening or ulceration of tuberculous masses. "Were this not so, it could hardly be otherwise than extremely common in phthisis pulmonalis for the patient to perish from perforation of the lung. A disease which consists essentially in the formation of a

* Glasgow Medical Journal, 1865, vol. xiii., p. 170; and 1868, New Series, vol. ii., p. 191 *et seq.* Compare my "Clinical Medicine," p. 388.

multitude of abscesses in all parts of the lungs could hardly have any other termination, were it not for those little attacks of adhesive pleurisy so well known to the pathologist as forming hardly less essential a part of the disease than the tubercles themselves. These 'little pleurisies' no doubt contribute largely to the symptomatology of pulmonary phthisis by causing the well-known 'flying pains' about the shoulders and armpits and below the clavicles, which patients occasionally insist upon more than the really formidable symptoms of the disease. ..... But by far the greatest importance of these minor pleurisies is in relation to prognosis, for it is not too much to say that without them phthisis could hardly ever pass into the third stage, or, perhaps, even beyond the first, without destroying life."*

Now, in cases like that of this boy, Richard C——, it is not always easy or possible to be sure of the relation in which an acute pleuritic attack stands to a pneumothorax occurring under observation; but of one thing we may be very sure—that had there been no pleurisy, the mere mechanical effect of the perforation which we know actually to have occurred, must have been much more disastrous. That the pleurisy or pleuritic adhesions previously existing did, in some way or other, contribute to the limiting of the escape of air is too obvious from the facts above stated to admit of question. What were the precise steps in this process we do not know, but I incline to believe that a slight (perhaps miliary) tuberculisation of the lungs had preceded the acute symptoms almost unperceived, and that along with this had been established a certain amount of local adhesions, firm enough to resist the collapse of the right lung on the advent of perforation. When this accident occurred (or possibly in advance of it), a further amount of more acute pleurisy seems to have occurred, but this, too, tended in the direction of circumscription rather than of diffusion of the results of the pneumothorax, and ultimately what must be called, under the circumstances, a *cure*—i.e., a convalescence and more or less complete recovery from the acute symptoms, with disappearance of the positive signs of pneumothorax, though with a certain amount of retraction of the side—was obtained. Now, as the signs of pneumothorax were only discovered by the most careful and repeated observations, and as they thus disappeared in the course of a few weeks, one is tempted to ask—What would have been the diagnosis of this case if seen only at the last period, or if examined with somewhat less care and exactness? The answer must be, that it could only have been regarded as a case of pleurisy pure and simple. And this, again, raises the question—Is it possible that a limited and localised pneumothorax is more frequently associated with pleurisy than is commonly supposed?—and, especially, is tubercular pleurisy, or even empyema, occasionally determined by or associated with a perforative lesion, without the fact being discovered? To these questions of course no exact answer can be given, but perhaps they will be considered as deserving at least to be suggested in connexion with the present case. It is worthy of note that in a not inconsiderable number of cases of tubercular empyema I have now obtained, unequivocally, and without any leading suggestion, the following history: At a previous period, more or less remote, the patient has been conscious of a perfectly distinct jumbling sound in his chest; and this has in most cases taken place without any expectoration, and has ceased altogether at a later period. In one case already recorded (*Glasgow Medical Journal*, 1865, *ut supra*) I had an opportunity of tracing through all its stages the progress of a pneumothorax into hydrothorax, and then into empyema, in eight weeks; the use of the exploring needle and of physical signs together rendering it absolutely certain that a large accumulation of air completely disappeared within the time stated. A case which I believe from the history to be of this nature, but which, beginning ostensibly as a pleurisy, in the end assumed the dimensions of an enormous purulent collection, was one of the first cases admitted into the Western Infirmary last November; and it is to be observed that in several cases of this nature which I have seen at a late stage, and where I have had occasion to draw off a portion of the fluid, it has not been at all fetid, as might perhaps have been expected. But the association of empyema with pneumothorax is too wide a subject to be further discussed at present.

* See the article on Pneumothorax, in my "Clinical Medicine," chap. xv., especially p. 395 *et seq.*, for many remarks not possible here, on the *limiting* function of even recent pleurisy, in cases of impending or actual pneumothorax.

NOTE ON A

CASE OF HOMICIDE BY THROTTLING.

BY CHARLES J. CULLINGWORTH,

SURGEON TO ST. MARY'S HOSPITAL, MANCHESTER; AND TO THE MANCHESTER CITY POLICE.

DURING the assizes recently held in Manchester, a man following the occupation of a market porter was tried for the murder of a woman with whom he cohabited. Her death had been caused by that form of strangulation known as throttling, and from the interest attaching to some of the internal post-mortem appearances, the case deserves, I think, to be placed on record.

The accused man and his companion occupied a room on the ground floor of a house in Ancoats, the other rooms in which were let off separately to different tenants. Access to the rooms was by a common outer door, opening into a small lobby or entrance, from three to four feet square, of which the left side formed the door of the room where the catastrophe occurred; and at right angles to this, facing the entrance, was the door of another room, inhabited by an old man and his wife, who were the principal witnesses, and who must have seen any person enter the adjoining apartment after the closing of the outer door for the night.

Late in the evening of Dec. 26th, 1874, the accused and the deceased woman were seen in their own room, sitting alone, both of them quite drunk. They then appeared to be on good terms, and were drinking beer together. One of the witnesses deposed to having heard them attempting to join in the singing of a convivial song. About one o'clock in the morning, the old people on the same floor were startled by a noise as of a table being capsized, followed by a loud crash of breaking pots; some moaning was heard shortly afterwards, and then all was still. At half-past five the accused man tapped at his neighbour's door, and asked for a light. A candle was lent to him, with which he went back to his room, and presently returned, having found the woman, by whose side he had been lying asleep, dead and cold. He at once gave information to the police, who arrested him on a charge of murder.

At 9 o'clock in the morning of the 27th the room presented the following appearances. A large round table was lying on its side, an arm-chair in one corner was also thrown over, and three of its legs were broken, the floor was strewed with broken pots of all sorts and sizes, and in the middle of the room lay a mass of solid human excrement. In a washing-bowl, on a side table composed of an old box, was a quantity of dirty water, on the surface of which solid excrement was floating. On a low bedstead in one corner the body of a woman lay on her right side, dressed in every-day clothing, and in a condition of rigor mortis. The face, more particularly on the right side, was swollen and livid, and a little blood had oozed from the mouth, nose, and inner angle of the eyes. Immediately over the larynx, and on each side of the middle line, there were livid marks of irregular outline, such as might be caused by the pressure of thumb and fingers. There were also several dark bruise-like discolourations on the flexor surface of both forearms; the hands were clenched, and the elbows flexed. There had been a discharge of fæces from the rectum, and on one leg an ulcer was found, for which it turned out that she was being treated as a hospital out-patient at the time of her death.

The post-mortem examination, made on the evening of the same day (Sunday, the 27th) revealed a perfectly natural condition of the brain and its membranes. There were no signs of injury to the hyoid bone or cartilages of the larynx; the mucous membrane lining the larynx and trachea was congested and covered with frothy mucus. The lungs were intensely congested; in several places hæmorrhage had taken place, and masses of lung-tissue, some of them of considerable size, were found on both sides, chiefly towards the bases, solidified from the presence of the effused blood. The valves of the heart were free

from disease, and all the cavities of the heart were empty. The stomach was empty and normal, and no congestion was met with in any of the abdominal viscera.

I gave it as my opinion that death resulted immediately from the congestion of the lungs, caused by a forcible and recent stoppage of the respiration. I considered the marks on the front of the neck were most probably marks of the thumb and fingers, and I maintained that pressure continuously exerted at that spot for a period of three to five minutes would cause death, and account for the internal appearances.

In answer to a question put to me by the judge, as to the possibility of a person moaning after fatal pressure of this kind, I denied the possibility, and suggested that the moaning probably occurred previously, when the bruises were received on the arms. On the whole, it seemed likely that the accused, desiring the woman to retire to bed, became irritated at her obstinate refusal, and proceeded to hold her down by the throat, his condition of drunkenness obscuring his estimate of the consequences.

The case was reduced, by permission of the court, to one of manslaughter, the man found guilty, and sentenced to eighteen months' imprisonment.

The points of interest are:—(1) Absence of signs of cerebral congestion; (2) the number and extent of the hæmorrhages into the lungs; and (3) the emptiness of the heart's cavities on the right side.

Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

TWO CASES OF INSULAR SCLEROSIS OF THE BRAIN AND SPINAL CORD.

AT page 471 we drew attention to the fact that there were two cases of the interesting disease, insular sclerosis of the brain and spinal cord, under treatment in this hospital. The notes of one case have already appeared. Subjoined are the notes of the second case, the publication of which we have been obliged to postpone.

Edward M——, a single man, aged thirty-two, who had been in service as a footman, was admitted as a patient under Dr. Moxon's care on the 20th January last. He had been always healthy, with the exception of an attack of rheumatic fever ten years before, which laid him up for a month or six weeks. His present illness commenced five years before admission, both his knees giving way as he was carrying a tray down stairs, and he was unable to use his legs for more than an hour. He was, however, able to get about for some twelve months, feeling all the time very weak and tottering about the knees; he then gradually got worse. A year before admission his eyesight began to fail, and his head to shake a good deal, he being unable to keep it steady. In October, 1874, he was admitted to Tunbridge Wells Infirmary, and whilst there had a good deal of pain across the spine about the last dorsal vertebra; he was cupped for it, and was relieved of the pain. He entirely lost his eyesight for a fortnight, and had since then never been able to see well; on attempting to read, the words seemed to run into each other. He was discharged, being no better.

The patient is a well-nourished man, of dark complexion, with a silly expression of face, laughing heartily at trivial things. His eyeballs are somewhat prominent; voice rather high pitched in tone; his articulation impeded by misplaced accents, so as to have a *staccato* character. He protrudes his tongue well, without trembling; it is clean and moist. His bowels are constipated, and he occasionally has some difficulty in passing his water. He complained of a good deal of headache a month before admission; but it has left him now. His appetite is good, and he sleeps well. At times he has considerable jerking movement in his legs and head. He complains of his feet always being cold, and occasionally his legs; and he is unable to bring both index-fingers together without some oscillating movement. He can pick up small things with his finger and thumb; but does so somewhat awkwardly. He has good power in his legs, and no stiffness. His sight is impaired in both eyes; and there is nystagmus slightly marked. Sensibility very good all over the surface; muscular sensibility good. There is little or no jerking whilst the patient is lying quiet; but immediately he moves to sit up it comes on as a helpless tremulous quaking. The heart-sounds are normal, though feeble. The liver is normal, as are also the lungs. Urine: sp. gr. 1008; no albumen. His pulse is very feeble, 60.

Jan. 25th.—He complained of a sensation of numbness in both legs, extending from the knees to the soles of the feet, tactile sensibility at the same time being very good. He had during the morning some little difficulty in passing water.

28th.—A little stiffness in both legs, which he experienced the previous day, seemed to have extended somewhat higher, reaching as far as the middle of both thighs.

29th.—The feeling of numbness was most marked in both soles. Urine, sp. gr. 1028.

Feb. 1st.—There was less jerking of the head and hands, and he said the numbness was not so great.

2nd.—There was again some difficulty in passing water, principally noticed when first waking, being unable for a few seconds to micturate, and often producing slight pain.

6th.—There was decidedly less muscular power in both legs, and more jerking movements.

10th.—The numbness, which had been decreasing, had left his legs entirely, and he felt much better, but three days later it returned, and during the night his legs were so stiff that he was unable to bend them or to sit up in bed, and he felt much worse.

20th.—He was removed into Clinical ward. It was noticed that his head immediately began shaking when moved; the jerking of his eyes was also plainly to be seen whenever he looked at any object; his right arm was steadier than his left, and he fed himself with his right hand best; when eating, he first looked well at the morsel, and then jerked it towards his mouth, so as to catch his mouth during oscillation; his legs seemed to have very fair power when he was lying down, but when he was taken out of bed they gave way at the knees, which he was unable to keep extended, therefore immediately slipped to the ground; sensation seemed perfect, and he could easily distinguish between heat and cold; his articulation was very imperfect, speaking in monosyllables and placing the accent indiscriminately on any syllable, and generally on the wrong one.

22nd.—He was troubled with cramp in his legs just above the knee, and his legs felt stiff; he attributed this to his having tried to stand on them. There was a slight discolouration over his sacrum, almost between the nates.

26th.—His articulation was becoming more difficult, and his head shook whilst at rest on the pillow, but on the following day this ceased. He micturated easily, having full control over the stream.

March 2nd.—During the night his legs were numb and stiff, but they were better in the morning.

8th.—He had not suffered from stiffness again, but the difficulty in his speech was more marked, as also was the nystagmus. Sensation, however, was not diminished. The man seemed very happy, never making any complaint about his ailments.

In this case, too, the disease is quite characteristic. It instances the cerebral form of the complaint; a remark which, however, only means that the brain symptoms—affection of speech, nystagmus, imbecility—are more prominent than the spinal symptoms. He retains the muscular strength of his extremities remarkably; indeed, when he is lying down the legs can put out great power, yet he cannot stand. In this one point the case just now exhibits one of the reputed characteristics of locomotor ataxia. But there is no loss of tactile sensibility, the pains of ataxia are entirely wanting, and the positive characters of insular sclerosis are so evident that there is no likelihood of a mistake about the nature of the disease being made by anyone who has seen it before.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

CASES OF CATARACT.

(Under the care of Mr. POWER.)

THE following report, for which we are indebted to Mr. Ernest Alford, house-surgeon, is concluded from page 472.

CASE 10. *Cataract with fluid cortex; hard nucleus; extraction.*—C. C——, aged forty-five, came up from Jersey to have the lens removed from the left eye. His sight had been failing in it for four years. With the right he was able to read large print. Without chloroform, Mr. Power did a modified linear extraction on the left eye. No speculum was used, nor was the eye steadied with forceps. Rather a larger iridectomy was made than was intended, owing to the man suddenly moving his eye when the iris was touched. No vitreous escaped, but the anterior chamber completely filled with blood. The lens was removed entire in its capsule, and was very fluid, with a hard loose nucleus in the centre. The eye was undone for the first time on the fifth day, and was looking very well. He could see light clearly. On the eighth day he got up, and on the fifteenth he was discharged. With convex 4½ V=$\frac{1}{10}$; with convex 2½ read No. 1. He has not yet reappeared.

CASE 11. *Senile cataract; extraction.*—J. D——, aged sixty-four, a clerk, had suffered from cataract in both eyes for ten years. It had come on very gradually, commencing after an attack of pleurisy, and increasing equally in both until eighteen months ago, when the right eye got rapidly worse, and had been useless for reading since. The left had continued useful until a month ago. V=$\frac{3}{10}$, and he read No. 6 Snellen with both, but not easily. Mr. Power did a modified linear extraction, without any mishap. Atropine was instilled, and a pad and bandage applied. It was dressed twice a day, and atropine instilled. He slept well without any narcotic; his bowels were regular, and his appetite good. On the second day he could count fingers. The next day the wound had united perfectly; and there was no sign of inflammation, and no pain. On the fifth day it was very painful for some time, the aqueous was a little turbid, and the iris slightly discoloured. A compress was applied, and an aperient given. On the following day he was much better, had no pain, his bowels were opened, the media were again clear, and he got up for the first time. Four days afterwards it was again slightly inflamed; an ounce and a half of blood was removed by the artificial leech from the temple, and four grains of quinine were given twice a day. An aperient was given on the following morning. In a few days the inflammation had entirely disappeared, and he was discharged on the twenty-second day after the operation. With convex 3½ V=$\frac{20}{100}$, and with convex 2½ read No. 4 Snellen.

Three months after the first operation he again appeared, and Mr. Power removed the lens of the other eye in the same way. Chloroform and ether (1 in 3) was administered. He did very well until the third day, when he struck his eye in getting out of bed, causing violent pain and great swelling of the lids. This soon subsided, and he made an excellent recovery; and was discharged twenty days after the operation, with a perfectly clear pupil.

Five weeks afterwards he came to have glasses tried. Both pupils were quite clear, and his vision was—with *both* eyes—with convex 4 V=$\frac{1}{10}$; with convex 2½ read No. 1.

CASE 12. *Senile cataract; extraction.*—Mrs. M——, aged sixty-three, was a very unhealthy woman, with cataract in both eyes. Her legs were œdematous, with large ulcers on them. From a slight blow on her back a large abscess had formed, which had not yet healed. The left eye had been getting dim for three years, and had been useless for one year. The right had been as good as ever until a few months back. Mr. Power did a modified linear on the left eye under chloroform. The lens was large and rather soft. The operation was successfully performed, atropine instilled, and a pad and bandage applied. A hypodermic injection of one-sixth of a grain of morphia was given at night. She slept well, and had no pain the next morning. Thirty grains of chloral were given for the next few nights. She had some conjunctivitis, with chemosis, which passed off in a few days. The wound had healed by the fourth day, when two grains of quinine twice a day were ordered. On the seventh day the bandage was left off and a shade worn, two leeches were applied to the temples to check the conjunctivitis, and a mixture containing aconite, colchicum, and quinine was ordered. Her pulse was very feeble. The chloral was continued at night, as she was very restless. The following evening she seemed very weak, and fainted, partly owing to the weather being very hot and close. Quinine, hydrochloric acid, and spirits of nitrous ether were given as a draught. Two days afterwards she was much better and felt stronger. A lotion containing one grain each of alum and atropine to an ounce of water was ordered. She could open the eye easily, and could count fingers at the distance of one foot. A little capsule remained in the pupil. She suffered from rheumatic pains most of the time she was in the hospital. Fourteen days after the operation she was discharged.

She again came up from Jersey eleven weeks after her discharge, to have a piece of capsule removed from the same eye. This was done with a single needle, and she went out eleven days afterwards, able with 2½ in. convex to read No. 1 Snellen, with convex 4 in. V=$\frac{1}{2}$.

LONDON HOSPITAL.

CHOREA IN A DOG; NO EMBOLI; PERSISTENCE OF MOVEMENTS AFTER SECTION OF THE CORD.

IN our "Mirror" of Feb. 3rd, 1872, we reported some remarks by Dr. Hughlings Jackson on a case of chorea in a dog. Nothing further was heard of that patient. In another case of chorea in a dog the animal was killed. Dr. Gowers examined the brain and spinal cord and found no emboli nor disease of any kind in these parts. That animal was killed by dividing the spinal cord in order to see if the movements of the choreic foreleg would persist. For the few minutes the chloroformed animal lived they did persist. This result, so far as it goes, agrees with what M. Chauveau and others obtained in their experiments. In the recent (1872) work of Messrs. Onimus and Legros, experiments of this kind are given. They say that many experimenters have noticed the persistence of the rhythmic movements after cutting the cord across. M. Chauveau, they remark, having cut across the spinal cord of a dog at the level of the atlo-occipital space, noted that the animal, entirely deprived of voluntary movements, suffered from the same violent choreic jerks as before the operation. M. Carville and M. Bert have brought before the Society of Biology analogous observations. (See "Traité d'Electricité Médicale," p. 382.)

The movements in the dog's chorea are very different from those of a choreal child. But this is what one would expect, as the nervous systems of the two differ. We have to consider the kind of nervous system to which the disease comes, as well as the nature of the disease.

Such experiments would seem to dispose of the localisation of chorea in the higher centres—i. e., if the chorea of veterinarians be the veritable analogue of the child's chorea. But again we must note that the nervous systems of the two differ. The lower the animal the less the higher centres and the more the lower centres of that animal are developed in comparison with one another. When we get so low in the scale as the frog, the spinal cord suffices for the execution of highly compound movements which look purposive.

No doubt, however, these experiments will, Dr. Hughlings Jackson believes, be considered by very many as strong evidence against the localisation of the movements of human chorea above the cord. He thinks it right, any way, to draw attention prominently to the two facts about the choreal dog mentioned in the first paragraph in the report, (1) that movements of the choreic foreleg persisted for a short time after section of the cord; (2) that no emboli were discovered.

BRISTOL GENERAL HOSPITAL.

LITHOTOMY PERFORMED TWICE ON THE SAME SUBJECT SUCCESSFULLY.

(Under the care of Mr. DOBSON.)

CASES of lithotomy performed a second time on the same patient are sufficiently rare to make the following brief account of some interest.

Albert M—— was first admitted under the care of Mr. Dobson in July, 1872, suffering with very aggravated symptoms of stone in the bladder. He had always been a delicate boy, and his mother stated that he had had difficulty and pain in passing water since his birth. He was on admission a miserable-looking little creature, and suffered intensely with all the symptoms of stone, including prolapse of the bowel. A few days after his admission into the hospital Mr. Dobson removed, by lateral lithotomy, a uric-acid calculus weighing eighty-three grains. The stone was round, not facetted; no other stone was felt in the bladder. There was no unusual difficulty in the operation, and the boy made a fair recovery, though always appearing delicate, and left the hospital cured of his stone symptoms in a few weeks.

In the beginning of February last he was again admitted with a return of all the symptoms, if possible rather worse than before. Mr. Dobson again performed the lateral operation through the site of the previous incision, and removed a uric-acid calculus weighing 326 grains. Beyond the large size of the stone, there was nothing unusual in this operation, and the boy made a speedy recovery; and, instead of being, as he was before the second operation, an emaciated and helpless little fellow, he is now getting plump and able to run about.

It will be seen that the interval between the two operations was about two years and a half, he being three years of age at the first operation, and nearly six at the second. Though he had twice, between the two lithotomies, been under Mr. Dobson's care, on one of which occasions he amputated a thumb, and on the other the index finger, for strumous disease; yet he was unable to learn satisfactorily the date of the commencement of the second set of stone symptoms.

On referring to the 1015 cases of stone in the bladder occurring in the Norfolk and Norwich Hospital, reported by Mr. Williams, it will be seen that there was a recurrence of the stone in 27 cases. Of this number only three recurred before six years of age, and the weight of the largest stone thus recurring before the patient was six years old was 210 gr.; the weight of the stone in the case now recorded was 326 gr. This is a large size for a uric-acid calculus to attain in a small child in two years and a half, but it is moderately certain no second stone existed at the time of the first operation, because no facet was found in the first stone, nor could the finger, which commanded the whole interior of the bladder, detect a second calculus. The case is thus interesting as showing pretty clearly how rapidly a large uric-acid calculus may form.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE meeting of this Society on the 27th ult. was unusually well attended, Sir James Paget occupying the chair. Among the visitors were several French and Danish physicians, including Dr. Oswald Heer, of Copenhagen. At the opening of the proceedings a brief communication was read from Dr. Semple to the effect that as, in consequence of the large number of papers yet to be read before the Society, and the session being already far advanced, it would not be possible for his paper on Croup and Diphtheria to be read this session, he had brought down the specimen of false membrane in the trachea and larynx from the case recorded in the paper. The patient was a child two years of age, in whom death resulted within twenty-four hours of the onset of dyspnœa. He had taken this course as the question of the identity of croup and diphtheria was at the present time exciting so much attention.

A paper was then read entitled "Practical Observations on the Pulmonary and Cardiac Complications of Abdominal Tumours, with Remarks on Bloodletting after Surgical Operations," by Dr. W. H. DAY, physician to the Samaritan Hospital. The paper opened with a description of some of the effects of solid or cystic abdominal tumours, and of large collections of fluid in the peritoneal cavity, in displacing the thoracic organs, and inducing a long series of constitutional and local symptoms. It was surprising how readily the heart and lungs became accommodated to their displaced position, when the abdominal pressure was slow and gradual. It was important to ascertain the condition of these organs before deciding upon the removal of fluid or of tumours from the abdominal cavity; for if there were any evidence of bronchitis or pneumonia, operations should be delayed until such complications had passed off. Or the lungs might be so damaged by long-standing compression that considerable danger was incurred on the removal of the compressing cause; but where there was reason to believe the compression to be of short duration the pulmonary symptoms due to this disappeared after the operation. After a detailed description of the anatomical and physiological effects of compression on the thorax by abdominal distension, in which the possible danger of anæsthetics, from their depressing influence on the heart, was pointed out, it was stated that occasionally death occurs somewhat rapidly a few days after ovariotomy from pulmonary congestion and overloading of the right heart. The symptoms in such cases were very slight, there being little else than increased arterial tension and fulness of the jugulars to indicate the obstruction to circulation. In such cases venesection was called for. This condition was especially liable to supervene if the patient were robust and plethoric; and a remarkable case of ovariotomy was related of an unmarried governess, twenty-three years of age, suffering from an ovarian cyst, complicated with albuminuria and other symptoms of venous engorgement, which was tapped by Mr. Spencer Wells before proceeding to remove the cyst. The tapping was performed slowly. Eight hours after, the temperature, which was normal at the time of the operation, rose to 100·4°; the pulse to 144. Bleeding to the extent of eight ounces was practised. Two days afterwards the temperature reached 106°, and thirteen ounces of blood were taken from the arm. This was followed by a gradual fall in temperature, and increased flow of urine. The relief, however, was but temporary, for on the sixth day after the operation the temperature was 104·8°, pulse 144. There was unconsciousness and widely dilated pupils. Three and a half ounces of blood were taken, a blister applied to the back of the neck, and a turpentine enema given. From that date there was uninterrupted recovery, the albuminuria gradually subsiding. Preliminary tapping of ovarian cysts, with an interval of rest for the patient to recruit strength and to allow the lungs to recover from the effects of compression, was advocated as expedient in most cases of ovariotomy. Several instances were given to prove the utility of venesection in cases where portions of the lung which had been compressed have rapidly expanded, and congestions or hepatisation have followed. Instances were also given in which organic diseases of the lung have been relieved after the pressure which aggravated the symptoms had been removed, including a remarkable case of ovariotomy in a subject of advanced phthisis, who had submitted to repeated tapping. In this case bichloride of methylene was the anæsthetic employed, and was given with great caution from fear lest vomiting, which might excite hæmoptysis, should arise. The patient lived three months after the operation, which had afforded her great relief. With regard to cardiac complications, old-standing displacements, especially when associated with degeneration of the walls or dilatation, or valvular disease, were regarded as serious. The pulmonary symptoms which often follow operations on the abdomen were compared with the more ordinary forms of bronchitis or pneumonia, and practical details of treatment in different classes of cases were given. The position of enforced rest after such operations was unfavourable for treatment of the chest affection. The paper ended with the two following conclusions:—1. That the surgeon who treats cases of abdominal distension must not overlook the pulmonary and cardiac complications which are due to compression or displacement. 2. That the success of operations for the removal of abdominal tumours may be increased or diminished by careful examination of the state

of the chest before operation, and by equally careful attention after operation, not only to the parts involved in the surgical proceedings, but also to those changes in the blood and in its circulation through the heart and lungs, and to the effects in these organs, which are due to sudden removal of pressure alone, or to other causes of considerable elevation in the temperature of the blood.—Mr. KNOWSLEY THORNTON bore testimony to the value of bloodletting, and pointed out the necessity of its prompt performance on the first appearance of such symptoms as flushing of face, and more or less dryness of skin. The temperature may not be raised at the onset of these symptoms, and it generally rose after venesection. He believed the symptoms had a cerebral origin, and showed that in many cases continuous application of cold to the head had warded off serious complications. This application was made by means of an india-rubber cap, so constructed as to allow of the free circulation of iced water through it. It was adopted by Mr. Lister in cases of head injury, especially those of compound fracture of the skull treated on the antiseptic method. The primary cause of these symptoms was probably the diversion to the internal organs of the large amount of blood which had been circulating through the tumour.—Dr. PROTHEROE SMITH stated that he had practised venesection after ovariotomy as long since as twenty-seven years. He also frequently bled before the operation, with a view to obviate the after-effects of hyperæmia, to which long-standing ovarian disease predisposed. He quoted cases in point, in which bleedings to the extent of three or four ounces were practised before the operation, and others in which peritonitis was benefited by venesection.—Mr. SPENCER WELLS thought such small bleedings before operation were of doubtful utility. Prompt and full bleeding (to twelve or sixteen ounces) on the supervention of brain symptoms was of marked benefit, and he had seen four or five additional cases since Dr. Day's paper was written. He also confirmed Mr. Thornton's statement as to the great benefit derived from the constant application of cold to the head by means of the cap described, and pointed out its superiority to the wet pack or bath in not disturbing the patient. He thought also that aconite in the form of the tincture, in small doses (half a minim or less) every half hour, was of considerable value. It reduced the pulse, and, although it had but little effect in bringing down the temperature, it seemed to enable the patient to withstand better the effects of a high temperature.—Mr. CLOVER, remarking upon a statement in the paper that anæsthetics tended to produce hæmoptysis, inquired what was the anæsthetic employed. When nitrous oxide was first introduced one case of hæmoptysis was recorded from its administration, but he had never met with an example.—Dr. HEYWOOD SMITH related a case which showed that small bleedings (to four ounces) certainly gave relief to distressing symptoms resulting from distension by ovarian tumour.—Dr. DAY, in his reply, dwelt upon the fact that venesection was not at once followed by a fall in temperature; there was generally a rise, and the temperature seldom fell until it had fluctuated much. Nor did he think the use of cold and aconite was of much value in cases which were decidedly benefited by venesection, relating one case in which these means had been tried and failed before venesection was resorted to with good result. In plethoric women why should not bleeding be resorted to before or at the time of the operation? With regard to the occurrence of hæmoptysis after anæsthetics, he had made the statement generally, believing that in cases of organic pulmonary disease vomiting would tend to excite hæmoptysis.

An interesting paper, contributed by Mr. A. FERGUSSON M'GILL, of Leeds, on "A Case of Left Subclavian Aneurism treated by temporary Compression applied directly to the artery in the first part of its course," was then read, of which the following is an abstract:—The patient, a laundress, aged thirty-five, had been suffering from an aneurism of the third part of the left subclavian artery for three years. She had been treated by digital compression, by manipulation, and by repeated galvano-puncture. The first two methods were adopted without result, the last with great though temporary improvement. In December, 1874, it was found on examination that the pulsation extended upwards from the centre of the clavicle for an inch and a quarter, and downwards and outwards from the same spot for two inches and a half. The patient was suffering much from pain, her rest was impaired, and she was rapidly becoming worse. Under these circumstances it was determined to try the effect of temporary compression applied directly to the artery at the first part of its course. On Jan. 2nd, 1875, the operation was performed. An incision was made from the centre of the sternum upwards along the anterior border of the sterno-mastoid for two inches, and another of the same length along the clavicle; the sternal and part of the clavicular origin of the sterno-mastoid muscle was then divided, and the anterior scalenus and first rib were reached. After searching with the finger the artery was found displaced backwards, and an aneurism-needle was passed round it. In passing the needle a small opening was made in the pleura. The artery being isolated from the surrounding structures, a pair of torsion forceps were applied, and left on for ten hours and a half. The next day there was a return of pulsation in the sac, but this disappeared in twelve hours. She was apparently doing well when symptoms of pleurisy and bronchitis supervened, and she died at the end of five and a half days. Leave could not be obtained to make a complete post-mortem examination, but a partial examination at the seat of the operation was allowed. The forceps had been applied at the point where the vertebral is given off, and at that position the artery was patent and healthy. The aneurism, which commenced a quarter of an inch from the thyroid axis, and extended outwards for three inches and a quarter, was filled with a hard clot, and was, in fact, cured. The operation was only performed after grave consideration. It was thought (1) that no other method of treatment could be adopted with advantage; (2) that the proposed operation was practicable; and (3) that there was a reasonable prospect of success. The second of these opinions was arrived at after making many dissections on the dead body, and after learning that Dr. Rogers, of New York, had applied a ligature to the subclavian artery in this position. It was thought that the application of a ligature in the ordinary manner was unjustifiable, as experience showed that patients on whom this operation was performed almost invariably died of secondary hæmorrhage. It was hoped that by applying temporary compression this accident would be avoided, while the experience of the rapid pressure treatment of aneurisms introduced by Dr. Murray showed that a cure by this procedure was not improbable. When this method of treatment is adopted the cure is not effected by the gradual deposition of layers of fibrin, but by the sudden coagulation of the contents of the sac. This will account for the return of the pulsation on the second day after the operation. Though in this case the treatment has not been successful, it seems probable that it may hereafter prove so in similar cases.—Mr. WOOD asked why the aneurism-needle which was employed in the operation was given up; also what was the condition of the outer coat of the artery? The possibility of damaging the vessel by direct contact of the forceps should be borne in mind, as sloughing of the coats leading to secondary hæmorrhage might be produced. He concluded by thanking the author for bringing forward this case in days in which it was not "fashionable to bring unsuccessful cases before the profession."—Mr. HENRY LEE pointed out that the simple filling of an aneurism by clot was not the same thing as a cure. He had lately under his care a case of inguinal aneurism which had completely consolidated after twelve hours' flexion of thigh on abdomen. Owing to the patient not carrying out instructions, the clot was detached, and pulsation returned in the tumour; the separation of the clot was accompanied by great pain in the course of the femoral artery.—Mr. HULKE said that it was important to know the exact condition of the artery; since its occlusion might take place by severance of the inner and middle coats, as when the ordinary ligature was applied, or by simple compression of the walls of the vessel. This distinction was clearly pointed out by Scarpa in a smaller treatise to his large work on Aneurism, who describes the employment as a ligature of a small band of linen strengthened by wire to effect the latter object. Sir Astley Cooper and others used, however, single threads in their cases, which were followed by secondary hæmorrhage; and here the middle and inner coats must have been cut through. A man had recently been under his care with simple fracture of the forearm, from having been run over by a cab; on removal of the bandages, on the third day after admission, no pulsation was detected in either radial or ulnar arteries.

The case proved fatal from purulent œdema of the arm and diseased kidneys. It was found that the wheel, in passing over the arm, had caused laceration of the inner and middle coats of the brachial artery, just as if a ligature had been passed round the vessel. The brachial artery above and below the divided coats was plugged by firm clot, which extended into the radial and ulnar trunks.—The PRESIDENT explained a new method of exerting compression on an artery, which had been introduced to his notice by Mr. Dix, of Hull. It consists in the passage of two silver wires round the vessel, their free ends being drawn through the skin at the side of the wound, and tied round a piece of cork placed on the skin. This device had the advantage of enabling the surgeon to regulate the amount of compression exerted upon the artery by tightening the wires at will, as well as in allowing the wound over the vessel to completely close. Mr. Dix had employed it in a case of carotid and one of popliteal aneurism, as well as in other cases.—Mr. MCGILL, in reply, said that the aneurism-needle was passed to aid in adjusting the forceps, a proceeding rendered necessary by the deep position of the vessel. The coats of the artery at the seat of pressure were practically normal. The pressure had been adopted simply with a view to bring the walls into apposition, and not to divide the inner and middle coats, which it was hardly possible to do without causing some sloughing of the outer coat. He thought that his case was practically cured, judging from Dr. Murray's cases of rapid cure after compression; moreover, the clot would surely have become detached at an earlier date if cure had not resulted.

The meeting then adjourned.

CLINICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on April 23rd, Dr. E. Headlam Greenhow in the chair. The meeting was chiefly marked by an interesting and prolonged discussion upon the relations between croup and diphtheria, arising out of a case of scald of the glottis, accompanied by deposit of membrane on the larynx, trachea, and bronchi, communicated by Mr. R. W. Parker, of the Hospital for Sick Children, Great Ormond-street. It will be seen that the majority of the speakers, including Drs. Dickinson, Hilton Fagge, Duckworth, and Greenhow, opposed the view of the identity of the two affections, which was advocated by Mr. Parker, who was supported by Drs. Yeo and Cayley. The absence of the President (Sir W. Jenner) deprived the advocates of this doctrine of the benefit of his support.

The first paper read was by Dr. GUSTAV FRITSCHE, of Czenstochowa (Poland), and was communicated to the Society through Dr. Tilbury Fox. It was "On a Case of Fibroma weighing 35 lb., successfully removed," which resembled two cases of idiopathic hyperplasia of connective tissue communicated by Dr. Fritsche to the Society in 1873 (*vide* Clin. Soc. Trans., vol. vi., p. 160). The patient, a female aged twenty-seven, was first seen on Sept. 20th, 1873. She was of medium stature, pale and weakly. An enormous tumour, springing from the sacro-lumbar region, depended to the level of the knees, its pedicle reaching from the eleventh dorsal vertebra to the sacro-coccygeal articulation. Its circumference in long diameter measured 42 in. Its anterior surface was grooved, so as to simulate the inter-gluteal furrow. The skin over it was sclerosed, and traversed by dilated lymphatic and venous trunks. The mass felt soft, especially in the lowest parts, feeling like a sac filled with gelatinous material. The surface temperature of the growth was very low; it had existed from childhood, and was probably congenital, for a dark patch was noticed in the sacro-lumbar region at birth. At the fifth year a small swelling appeared in this situation, which gradually increased from that time, the patient becoming unable to lie on her back. The catamenia appeared at the age of seventeen, and continued natural up to her twenty-second year, when they ceased. On October 20th the tumour was removed by Dr. Krosinski, of Warsaw, who adopted the first of the two alternative methods—viz., complete removal at once, with subsequent ligature of vessels, or gradual dissection, tying the vessels one by one. Compression was maintained over the pedicle, but there was much hæmorrhage and escape of serous fluid. Fifteen arteries and many large veins were tied. The edges of the wound, which measured twelve inches and a half in length, were brought together by interrupted sutures. After removal the mass weighed thirty-three pounds, to which might fairly be added two pounds for the amount of fluid lost. Histologically it was composed of large bundles of cellular tissue furnished with spindle-cell forms, and containing within their meshes much albuminous fluid and wandering cells. This formed the fifth case on record in which a tumour of such large proportions had been removed, the others being by Virchow, Lister, Keith, and Bickersteth. Some traumatic fever followed the operation. The sutures were removed on the sixth day, leaving an enormous wound, which took long to heal, abscesses forming in the neighbourhood, and an attack of erysipelas being incurred. The patient left the hospital in April, 1874. Photographs were exhibited showing the condition before operation and after cicatrisation.—Dr. TILBURY FOX said it was a valuable contribution to the therapeutics of fibroma, for, taken in connexion with Mr. Pollock's cases, it showed that such large masses can be removed successfully, contrary to what is stated in books.—Mr. POLLOCK said that in all the cases he had seen (some ten or twelve) there had been smaller multiple tumours in addition to a larger mass. He pointed out the necessity of trying to save as much blood as possible during the operation. This was done in his last case by first passing numerous ligatures round the base of the mass to be removed, the vessels being so large that the veins equalled the fingers in size, while the arteries were as large as the radial. Although he left much behind, yet the mass removed was so great (extending the whole length of the thigh), and, in spite of precautions, so much fluid and blood was lost, that the patient never rallied from the operation.

Mr. THOMAS SMITH read notes of a case of "Disordered Nerve-function in an Infant." The child was a female, and under the care of Dr. Chaldecott. Was healthy up to one year, when it could walk. It then began to suffer from disordered bowels and general debility. In December, 1874, Mr. Smith first saw the child. It was then sixteen months old; had an anxious expression, and a pale face; was irritable; skin harsh and dry; bowels constipated. The hair on the head was very scanty, reduced to a few tufts. The child held its head as if it had cervical caries; but the spine was nowhere tender save in the sacral region, and rectal examination gave no result. It had great dislike to movement; there was no paralysis, sensory or motor. The urine and fæces were retained. The child was at once quieted by scratching the palms of the hands or the soles of the feet; the muscles relaxed, and the pained and anxious expression passed off. Profuse sweating followed on the parts scratched, and the feeling of pleasure lasted as long as the sweating did. Similar treatment of the scalp produced the same phenomena; and the reason of the scanty supply of hair lay in the infant having literally plucked what it had up by the roots for its own gratification. Since these symptoms had occurred it had been taking calomel, Dover's powder, and bromide of potassium. In February (the treatment in the interval had been supplemented by inunctions of cod-liver oil) the constipation was less marked; some tenderness still existed over the sacrum; the whole skin was soft, supple, and moist; and the child could not bear to have the palms or soles touched, or the hair, which had grown well, to be pulled. It could walk, and was in every respect improved, the improvement having taken place gradually. Mr. Smith remarked that had this curious train of symptoms been observed in an adult female, the affection might have been called "spinal irritation"; and he believed that they were, even in this infant, due to the same condition of the nervous system that prevails in spinal irritation.

Mr. R. W. PARKER read notes of a case of "Scald of the Glottis, with Deposit of False Membranes in the Pharynx, Larynx, and Bronchi." The patient, a girl aged three years and three months, was admitted into the Hospital for Sick Children on March 5th, 1875, under the care of Mr. T. Smith. Six days before admission the child put its mouth to the spout of a kettle boiling on the hob; the mother be-

lieved some water entered the mouth, which was immediately spat out. It slept fairly during the night, waking at intervals from the pain in the throat; but it could swallow a little milk. On the second day swallowing began to be difficult; and on the third day its breathing became more rapid, and a croupy cough set in, the child gradually became weaker, the voice feebler, and the cough noiseless. When admitted the child was very feeble, had a slightly intermittent pulse (160), marked working of the alæ nasi; respiration 44. There was marked pallor, with lividity of lips; expiration and inspiration were laboured and stridulous, while the voice was quite suppressed; great retraction of the hypochondria and intercostal spaces with inspiration; chest resonant throughout; breathing sibilant anteriorly, but absent at the bases of the lungs. Tracheotomy was performed two hours after admission; but relief was not afforded until two or three pieces of membrane—one tubular—were extracted from the air-passages by means of a feather introduced into the wound. The trachea was repeatedly cleared out in the same manner, and once or twice by suction through a catheter. The child, however, got worse, and died within thirty-six hours in a state of great prostration, profuse diarrhœa preceding death. At the post-mortem examination the lips and tongue were natural; two small erosions on the soft palate, at its junction with the hard; and a small patch of false membrane on the posterior surface of the uvula, but none on the anterior. The tonsils were small and free from membrane; there was a patch on the posterior wall of the pharynx; and the epiglottis was surrounded by membrane on all sides, it being also swollen and œdematous. The larynx was free from membrane with the exception of a small patch on one ventricle, and there was considerable loss of substance both above and below the vocal cords. The lining membrane of the trachea was red and granular, a condition extending down the bronchi to the third degree, and most marked in the right bronchus just below the trachea. There were patches of pulmonary collapse, but no pneumonia, and the jugulars were distended with fluid blood. No urine was obtained during life, but that removed from the bladder after death contained a large amount of lithates and traces of albumen, some débris, and fragments of casts (?). Mr. Parker stated that the membrane was to all appearance identical with that found in diphtheria, and in support of its actual identity he adduced the following arguments:—1st. The comparatively rare occurrence of membranous exudation in cases of scald, there being only two such in the post-mortem records of the London Hospital. Dr. Moxon also (*vide* THE LANCET, February 27th, p. 321) had only met with two cases. 2nd. In the large number of cases of scald of the throat which recovered, expectoration of false membrane was seldom met with. 3rd. The fact that the parts most exposed to the action of the steam in this case while it was hottest—viz., the lips, tongue, palate, and fauces—were free from membrane, while the tonsils were not even swollen. The glottis, too, must have been spasmodically closed to prevent the entrance of the irritant into the air-passages; so that some special condition apart from the direct effects of the scald must be required to explain the formation of the membrane in the deep parts; in fact, he held it to be due to a specific poison acting on an abraded surface, and thence spreading by continuity. This condition sometimes obtained in cases of foreign body in the larynx or in cut-throat, where membranous exudation occasionally was found. But is the formation the less specific because it follows an injury to a mucous membrane liable to this membranous inflammation? It might be compared to erysipelas following amputation of the breast. He then proceeded to argue in favour of the identity of croup and diphtheria, and stated that he had never yet seen a case of genuine sthenic croup in an ill-nourished rickety child; in such a one the same lesion produced "diphtheria" which in a robust child would be called "croup." As further evidence of this identity, he related a case in which laryngeal diphtheria, with tough white membrane, supervened in the fourth week of typhoid. On the ninth day of the attack, the onset of which was insidious, resembling simple catarrh, tracheotomy was performed, with marked relief and eventual recovery. There was at no time any membrane on the pharynx. Was this a case of croup or diphtheria? That it was the latter was proved by a little girl suffering from scrofulous disease of the knee in the same ward becoming ill a few days later, with depression, followed by difficulty in swallowing, nausea, and high temperature. The glands behind the jaw became swollen, the tonsils enlarged, and covered with membrane, which cleared off in a week, and recovery followed. Two weeks later the nurse in charge of these two patients suffered from sore-throat, with enlargement of tonsils, and recovered in three days. The diphtheria in the first case was attributed to the insanitary state of the ward at the time; but whatever the source of the contagion in the second case, whether from direct infection from the first or from the prevailing condition of the ward, it was evident that the two cases exhibited different manifestations of the same disease. Similar cases to the first of undoubted laryngeal diphtheria might be quoted. He believed, then, that in the case of scald of the glottis the membranous exudation in the air-passages was something superadded, depending upon the condition of the child, and that all cases of membranous exudation in the larynx have a common cause.—Dr. DICKINSON said he could not concur in those conclusions. The child must have been peculiarly unfortunate to have suffered from the effects of scald one day and to have been attacked with diphtheria the next. Irritants, as boiling-water, acids, &c., were well known to produce membranous inflammation in the larynx. The assertion that croup and diphtheria are identical was one of the most startling manifestations of the present change in the current of thought in medicine. It may, indeed, be impossible to discriminate croup and diphtheria by the occurrence of membranous inflammation of the larynx alone; but how could a case of scarlet fever be distinguished after death from one of simple cynanche pharyngea?—or how, as Dr. Moxon has pointed out, can Asiatic be distinguished from English cholera when the anatomical lesion is alone presented? or contagious erysipelas from the same affection following on a gumboil or inflamed tooth? Clinically, however, typical cases of croup and diphtheria differ more widely. Croup begins with nasal or bronchial catarrh; the inflammation, spreading to the larynx, leads to the formation of membrane. Diphtheria has no antecedent catarrh, but is ushered in by a general febrile condition resulting from a specific poison, and is accompanied by the formation of false membrane primarily on the pharynx, which may spread to the larynx. In the worst cases the exudation is limited to the pharynx, nasal passages, and mouth, and death occurs from asthenia. The laryngeal inflammation in croup has no tendency to spread. Glandular enlargements, the early appearance of albumen in the urine, and the frequent supervention of peculiar nervous sequelæ characterised diphtheria. The etiology is different: croup is frequently traced to cold; diphtheria mostly to exposure to some definite poison—e.g., sewer gas. The outbreak of diphtheria in the Children's Hospital quoted by Mr. Parker was traced to defective drainage and escape of sewer air into the ward. The subject was one peculiarly appropriate to the Society, whose President (Sir Wm. Jenner) had so recently declared in favour of the identity between the two affections; while he (Dr. Dickinson), on the other hand, thought the arguments in favour of their non-identity to be unanswerable; although cases are met with which it is difficult to place under either category.—Dr. HILTON FAGGE fully concurred in the views expressed by Dr. Dickinson, and he was partly influenced by the fact that membranes may be found in the larynx under such different circumstances, as in cut-throat. Every few weeks or so a child is brought to a London hospital suffering from croup. If it die, a membrane may or may not be found in the larynx, and it may reach the bronchi. In the pharynx there is usually more or less membrane. In old times the presence of membrane in the pharynx in croup was seldom recognised, but since the introduction from the French of the term "diphtheria," it has been taught that any membrane whatever seated above the ary-epiglottic folds was diphtheritic. Moreover, the older physicians, recognising croup from its clinical features, might readily have passed over small patches of exudation on the palate and fauces. Only a small proportion of cases met with in an epidemic of diphtheria present a marked laryngeal character, and, according to his experience, it was the rarest thing to find diphtheria admitted into a hospital apart from an epidemic. It was, indeed, highly probable that so-called "laryngeal

diphtheria" in children was merely croup. He believed that any true case of diphtheria is as contagious as the exanthemata. The last case he saw was nine years ago, when a patient with chorea, admitted into the same bed occupied just before by a case of diphtheria which was fatal, contracted the disease and died, although all precautions had been taken. It was far better always to act on the belief that diphtheria was very contagious. Croup and diphtheria cannot be distinguished by their anatomical characters, but he would say that in London a case of membranous laryngitis would probably be croup. Much of the confusion between the two affections arose from the use of the word "diphtheria" by the German writers. Thus Virchow gives the term "diphtheritic" to that form of inflammation in which the deeper layers of the mucous membrane are infiltrated, the whole altered membrane sloughing off; and Niemeyer, adopting this view, applies it to epidemic diphtheria. This is clearly erroneous, and a more correct interpretation is given by Rindfleisch, who admits an anatomical identity between laryngeal and pharyngeal croup (diphtheria). But it has led to the view being taken in England that the diphtheritic membranes should be inseparably adherent, and should invariably leave a raw surface when detached. — Dr. DUCKWORTH also concurred with the two preceding speakers, and pointed out that although the presence of membrane on the pharynx could not be held to be distinctive of diphtheria, there was invariably in this disease a peculiar turgidity and redness of the mucous membrane of the pharynx (even in purely laryngeal cases) which was never seen in croup.—Mr. T. SMITH pointed out that Mr. Parker's case refuted the statements that the membrane resulting from local irritation was not the same as that resulting from diphtheria; for here it had no character of a slough, but was precisely the same as a diphtheritic exudation.—Dr. YEO had recently been converted to the view that croup and diphtheria are identical; for he had seen cases presenting the symptoms of "croup" to which diphtheritic symptoms were added. One such, a child, died from blood-poisoning, although tracheotomy had been performed and had afforded great relief. Here the larynx and trachea were studded with circular patches of exudation. He thought Mr. Parker was quite justified in his opinion that the scalding water did not pass the glottis, and one explanation of the escape of the buccal mucous membrane might be found in the fact that this is ordinarily exposed to rough substances without injury.—Mr. BARWELL had seen several cases of scald of the throat produced by children sucking the spouts of tea-kettles. The child, being frightened, makes a deep inspiration, and thus draws water into the back of the throat, so that it is quite conceivable that some might enter the larynx. Only one case had he seen after death, and in that the trachea was lined by false membrane, while the tongue was abraded from contact with the spout of the kettle. He agreed with Dr. Dickinson that it would be very remarkable had a child been attacked with diphtheria directly after it had scalded its throat.—Dr. CAYLEY pointed out that the theory of non-identity required that more than one cause could produce the same effect; on the opposite view many effects had the same cause; one of the chief arguments against the identity of croup and diphtheria being that the identity of the membrane was no evidence of the identity of the disease. But it was notorious that the same poison, or the same irritant, produced very different effects in different individuals—the differences shading one into another. It was certainly not his experience that, as Dr. Fagge stated, cases of croup admitted into the London hospitals were equally distributed throughout the year. He had had cases at the North-Eastern Hospital for Children which from their sudden onset and rapid course would be called "croup," proving fatal within forty-eight hours, whether tracheotomy was performed or not. In all false membrane occurred on the fauces. Such cases were truly laryngeal diphtheria, so rapidly fatal as not to show any other of the symptoms of that disease. There are two other distinct forms of diphtheria—one in which the general manifestations predominate, and the other in which the local are conspicuous; cases of this kind occur even in epidemics. He believed the two diseases to be identical, and both due to the same poison.—Dr. GREENHOW thought that Mr. Parker's case was one of diphtheria in which the scald played the part of a determining cause, and he strongly upheld the view that croup and diphtheria were perfectly distinct affections. The marked depression characteristic of diphtheria was absent in croup. He had recently had under his care a case of croup which was treated by leeching and depressing remedies, emetics, &c., with success; but such treatment could never be adopted in diphtheria. A few weeks ago a child was admitted under his care, in whom the diagnosis was at first doubtful; but tracheotomy was performed, without relief, and the enlargement of the glands behind the jaw pointed in favour of diphtheria. Post mortem some small patches of exudation were found on the fauces, beyond the reach of observation during life. Four days after, the sister of this patient was admitted with diphtheria and died; while the nurse in charge of the two cases was attacked, and is now convalescent. The nature of the membrane was of minor importance; for it differed widely in different cases of diphtheria. He had only been enabled to examine after death one case of croup, in which death resulted from absolute choking by the false membrane. Here a tube of membrane was found confined to the larynx and trachea, the surface beneath being injected, but in other parts pallid and free from the vascularity correctly described by Dr. Duckworth as occurring in diphtheria.—Mr. PARKER, in reply, pointed out that those parts nearest to the steam were least affected; and he could not accept Mr. Barwell's explanation of the formation of the membrane in the trachea from direct irritation. The case of laryngeal diphtheria following typhoid which he had related was acknowledged by all at the time to be diphtheria, although confined to the larynx, and the membrane being exceedingly tough and white. The early symptoms in this case were those of croup—i. e., of a catarrhal character; but he had seen cases of croup in which there was but little primary coryza. Diphtheria might occur without deposition of membrane—merely coryza and reddened fauces. Passing to the sequelæ, he said that evidence is wanting that paralysis is a *necessary* sequela of diphtheria, and it would hardly do to base the diagnosis of a disease upon its sequelæ, which had sometimes been done in diphtheria. On that view dropsy or perforation of intestine might be held to be distinctive of scarlatina or typhoid fever, and yet it is very likely that these sequelæ can be prevented by timely treatment. Thus no case of scarlet fever treated from its commencement in the Children's Hospital during the past three years had been followed by dropsy; while those cases of scarlatinal dropsy admitted as such were precisely those in which little or no treatment had been adopted, the children having been allowed by their parents to run about a few days after the fever. So also with typhoid fever. With regard to albuminuria, in one of the two undoubted cases of diphtheria he had mentioned there was much albumen, in the other none. Was "croup" non-contagious? The last case in the Children's Hospital for which tracheotomy had been performed with success produced violent inflammation in the eye of the nurse in charge, by some of the membrane being expectorated into the eye. Nor was the amount of depression any diagnostic feature, and he repeated that he had never seen a case of sthenic croup in an impoverished child; the type, then, varies with the individual. There was no glandular swelling in the case of diphtheria following typhoid which he had related.

The meeting then adjourned.

MEDICAL SOCIETY OF LONDON.

THE meeting of April 12th—Dr. Routh, President, in the chair—was characterised by a discussion on the Identity or Non-identity of Croup and Diphtheria, provoked by Dr. Crisp's paper on the "non-identity" of the two diseases, in support of which he related cases taken from his own practice. In the discussion Dr. SEMPLE took a prominent part. He traced the origin of the word croup to an old Scotch monosyllable, and stated that three diseases had been confounded under the one term—viz.:—1. Membranous croup, or laryngo-tracheal diphtheria; 2. Non-membranous croup, or laryngitis stridulosa; and 3. Spasmodic croup, or laryngismus stridulus. After alluding at some length to foreign authors who had written on the subject, he mentioned the introduction of the word diphtherite or diphtherie by Breton-

neau, after investigations during the epidemic at Tours in 1818, in which the French physician was ably assisted by his then pupils, Velpeau and Trousseau, in which he discovered the existence of a false membrane in the larynx and trachea, and in which he convinced himself that the disease had previously existed, and been described in Spain at the end of the 16th, in Italy in the 17th, and in France in the 18th century. Dr. Semple thought the word croup should be rejected entirely as including the three divisions he had before mentioned. He agreed with the author of the paper as to the difference in the symptoms, &c., of croup and diphtheria, but would place Dr. Crisp's cases of croup under the head of laryngitis stridulosa, as no false membrane had been seen. —Mr. LENNOX BROWNE thought some of Dr. Crisp's cases might have been merely sore-throat. He did not consider diphtheria contagious by breath, but by contact.—Mr. HENRY SMITH supported Dr. Crisp in thinking the two diseases perfectly distinct.—Dr. DAY was of the same opinion, and asserted that cases of diphtheria do not recover after tracheotomy.—Dr. BRUNTON stated that tracheotomy in diphtheria had been successful in 15 per cent. of the cases under Dr. Buchanan, of Glasgow.—Dr. DRYSDALE also made a few remarks in support of the dissimilarity of the two diseases, and Dr. CRISP briefly replied.

Dr. SYMES THOMPSON read some notes of an Epidemic of Enteric Fever occurring on board H.M.S. *Doris*, in the West Indies during the early part of 1873, by Leonard H. J. Hayne, M.D., Staff Surgeon R.N. After describing at some length the symptoms of enteric fever and the importance of distinguishing between it and yellow fever, the author gave a table of twenty-nine cases, ranging from the ages of seventeen to thirty-two, of which twenty-seven recovered and two died. The cause of the epidemic was most distinctly traced to some bad water supplied to the ships of the detached squadron at Vigo, in North Spain, of which an elaborate microscopical examination was given. The water was condemned, but a good deal had already been drunk, some by the officers, who, however, escaped the epidemic owing to the water having been filtered. After describing the post-mortem appearances of the disease, the results of an examination of the air in the typhoid hospital on board the *Doris* were given, and the author states that he found carbolised atmosphere very efficacious in preventing the spread of the disease. The notes concluded by details of some of the cases.—Dr. FAYRER and Dr. WILLIAMS made a few remarks, and the meeting adjourned.

On Monday, April 19th, Dr. Routh, President, in the chair, the proceedings opened by Dr. PEDLER exhibiting the Pneumatograph, a most ingenious instrument to describe graphically the process of respiration. Dr. Pedler detailed its construction and its mode of application.—After Dr. THEODORE WILLIAMS and Dr. DRYSDALE had made a few remarks, Dr. PEDLER replied.

Dr. RICHARDSON read a report of a further research on the treatment *in extremis* of cases of Fibrinous Separation in the Heart and Large Vessels, being a continuation of one on the same subject read before the Society in 1872. The details of four cases were then related, in which the author had administered ammonia in large doses, for the purpose of causing resolution of fibrine in the right side of the heart or in the great vessels. In three of the cases the treatment was successful, but the fourth had a fatal termination, the patient dying from cerebral effusion. After a minute relation of these examples of disease, Dr. Richardson passed to the practical lessons suggested by them. He described the diagnosis of obstruction in the right side of the heart, considering—(*a*) the characteristic dyspnœa with open air-passages; (*b*) the fulness of the veins of the neck; (*c*) the feeble pulse, with the tumultuous and sometimes forcible stroke of the heart; (*d*) the diminished quality of the first sound of the heart; (*e*) the differentiation in the action of the tricuspid and mitral valves in respect to the first sound, a suppressed sound, not a murmur, being defined as the true physical indication of the presence of the coagulum. In connexion with the question of diagnosis, the author showed that a series of hysterical symptoms might in some persons so closely imitate the symptoms of obstruction that it was most difficult at first to distinguish between them and the true affection, the spurious symptoms, however, being recognisable from the actual by the physical signs to a certain extent; but that which proved them most certainly to be spurious was the rapidity with which, under any or no treatment, they passed away. The subject of treatment was then commented on. Together with the persistent administration of ammonia until the whole volume of the blood is under the influence of the alkali, absolute rest of the body in the horizontal position was most urgently enforced; the diet insisted on was milk chiefly, with avoidance of solid food and of alcoholic stimulants in every form; the employment of solutions, of opium especially, was forbidden. The *modus operandi* of the ammonia treatment was entered into at some length. The remedy was not given, the author said, as a stimulant, neither was it administered for the purpose of reducing febrile heat, though it might materially assist in this latter intention, but it was given to act as a solvent on the blood, and to prevent putrefactive changes; in illustration of which action a specimen of blood was shown which was still fresh and still fluid, although it had been kept over six months, having been kept in this state by the presence of ammonia. Dr. Richardson terminated his paper by saying that if he had suggested a plan of treatment which in one case out of four should save the patient, he should feel happy in the consciousness of having essayed a good work.

An animated discussion then took place. Dr. SEMPLE, after alluding to the mistakes made in former times in the diagnosis of these clots, and paying a tribute to the development of Dr. Richardson's ideas on this subject many years ago, thought that in a therapeutic point of view his conclusions were most valuable, and calculated to confer a great benefit on science and humanity.—Dr. DALDY wished to know if ammonia was really a solvent of fibrinous concretions of the blood. The heart, he remarked, was abundantly supplied with nervous ganglia, and he questioned the part they played in the phenomena. He thought Dr. Richardson assigned too much to the blood, and too little to the other organs.—Dr. FOTHERGILL said he had seen many instances in Vienna of the lesions pointed out by the author of the paper, but never a recovery.—Dr. LEARED asked whether Dr. Richardson injected ammonia into the veins, and whether the prolonged use of it by the mouth produced dyspepsia.—The PRESIDENT stated that he had seen three cases of the affection, all of which had been treated according to Dr. Richardson's directions; two recovered, and one died.—Dr. COOK had used ammonia with success, but was inclined to think the drug acted as much on the nervous system as on the blood.—Dr. RICHARDSON replied at some length, and the meeting adjourned.

Reviews and Notices of Books.

Compendium der Neueren Medicinischen Wissenschaften. Von Dr. BERNARD KRANS. Vienna: Moritz Perles. 1875.

THE object of the work before us is to combine, in one compact and moderate-sized volume, a series of condensed treatises on those special departments of medical science which are, to a great extent, the creation of the last twenty or thirty years, so that the student or the practitioner may possess in small compass the information he really needs for education or reference—information hitherto scattered through separate treatises, many of them large, cumbersome, and expensive. It is issued under the editorship and nominal authorship of Dr. Bernard Krans, chief editor of the *Wiener Medizinischer Zeitung*, and it contains, in its 850 pages, articles on Thermometry, the Sphygmograph, Percussion and Auscultation, Ophthalmoscopy, Microscopy, the Examination of the Urine, Laryngoscopy, Disorders of Articulation, Diseases of the Ear, Electro-Therapeutics, Hygiene, and Toxicology. The field embraced by these subjects is certainly one of sufficient extent, and leaves little unincluded that comes fairly within the range of the title.

The design is excellent; the execution of the plan is a matter of obvious difficulty. Compression and condensation, without loss of either substance or clearness, are possible

only to a limited extent. To be brief, comprehensive, and at the same time minute, is hardly possible. Hence, in such a work, one of two courses has to be adopted. The practical aspect of each science may be presented, its applied facts being given in detail, and its unapplied theory subordinated, or in part omitted; or, on the other hand, the whole of each subject may be set forth in due proportion, but this can only be with the loss of detail, and with such condensation as diminishes, even to a disproportionate extent, its practical value. The latter course is that which has been adopted for the most part in the volume before us, and although the endeavour has obviously been made to reduce the disadvantages of such a plan to a minimum, compact comprehensiveness has only been obtained at a loss of some practical utility. Under each head an account of the history of the subject is first given, its theory and relations are then set forth, followed by its practical application, a list of authors being appended, general and special. Each section appears to be the work of a different author, and it would be better, we think, if they were not anonymous. Assistance by "eminent colleagues" is acknowledged in the title page, and the authorship of two sections is given, but it would be fairer to the reader were he informed of the authority for the statements in the other sections, sometimes necessarily dogmatic in form, and of the accuracy of which he is presumably incompetent to judge.

The intention of the work is, however, fulfilled to a very considerable degree—a degree which varies, as might be anticipated, in different sections. The amount of space devoted to each subject necessarily differs. Hygiene and Electro-therapeutics receive the largest share, having 138 and 126 pages respectively. The former is very fully discussed, a fair, condensed view of the whole subject being presented to the reader: the various articles of food, apparatus for cooking, clothing, dwelling-houses, heating, air, ventilation, influence of trades on health, epidemiology, climatology, all receive due notice. But the loss of the detail needful for actual use, which is inseparable from the plan of the book, is seen very strikingly in this section. Water and coffee receive an equal space, and precise practical information on such subjects as the amount of water needed for household purposes and for drinking, and the means of recognising organic contamination, the specific gravity and amount of cream in unadulterated milk, or the cubic space of air necessary for efficient ventilation for each adult, will be sought in vain. In the section on Electro-therapeutics, from the pen of Dr. Lowandowski, the physics, mechanics, physiology, and therapeutics of the subject are treated in about equal proportions. This arrangement assigns a somewhat excessive amount of space to the physical and mechanical principles, which are repeated in somewhat unnecessary fulness in every book on the subject, large and small. In the mode of application, the methods of Benedikt are those chiefly followed. The amount of benefit to be expected in the various diseases is, perhaps wisely, not defined.

About eighty pages are devoted to the Urine, its physiology, the method of determining the presence and amount of its constituents, normal and morbid, and the significance of the changes which they present. This is one of the best chapters in the book. The details are full, and the chemical foundation for the various processes is clearly described. Microscopy, which receives sixty pages, is also a useful section; the construction and use of the microscope, and the clinical uses of the instrument, being given in considerable detail. Similar remarks apply to the chapter on Ophthalmoscopy, the physical principles involved being especially developed.

Diseases of the Larynx and of the Ear constitute subjects which, in their more limited range, lend themselves better than most to condensed treatment. Seventy pages are devoted to the former; sixty to the latter. The several affections of the larynx and ear are described in detail and in tolerably exhaustive fulness. The chapter on Anomalies of Speech is from the pen of Dr. Coen, and embraces an account of stammering, stuttering, and lisping.

Less satisfactory chapters are those on Percussion and Auscultation, and on the Sphygmograph. The last-named instrument is described; but as the normal pulse-tracing is not, the account given of the variations which it presents in various general diseases is of little value, and the effect upon it of cardiac disease is not alluded to. Percussion and Auscultation also receive too little space for fair treatment, only twenty-five pages being given up to their theory, the practical application in health and disease of the theoretical principles, and the various morbid states recognised by their means. Even so far as it goes, it is hardly a fair representation of the present state of knowledge on the subject—at any rate in this country. In the account of what is to be learned by percussion, amount of resistance is not alluded to. The presystolic murmur is not mentioned as a sign of mitral constriction, which is considered to be indicated only by a diastolic bruit; presystolic rhythm being given as conclusive proof that a murmur is pericardial in character.

The first seventy pages of the work are devoted to clinical thermometry, and are a valuable and trustworthy *résumé* of the results hitherto reached, condensed chiefly from the writings of Wunderlich and Alvarenga. A description of the variations of normal temperature and their causes is followed by an account of the general character of pathological temperatures. The assistance the thermometer may give in diagnosis and prognosis is considered at length, both generally and in relation to special diseases, and further on the course of the temperature in each disease is detailed. Typhoid fever receives the longest notice, as is natural from the great amount of attention which has been bestowed upon its characters. Other diseases receive somewhat unequal attention, syphilis having the most space devoted to it, while meningitis is dismissed in a few lines, and chronic phthisis is not even mentioned.

The "Compendium," although unequal, is of value, several of the sections, as we have said, possessing considerable merit. In this country its sale will probably be small, since to those who need it most a German work is often a sealed volume. But within a narrower range, and with the limitations we have mentioned, it will no doubt be useful, and can be recommended. Not the least useful feature which it presents is the admirable index to each section which will be found at the end of the volume—an addition too often neglected in works of this character.

Functional Derangements of the Liver. By C. MURCHISON, M.D., LL.D., F.R.S. London: Smith, Elder, and Co. 1874.

DR. MURCHISON'S Croonian Lectures, delivered last year before the Royal College of Physicians, have been republished in a small volume. Appearing originally in our columns, they are already familiar to our readers. Clear in style and comprehensive in scope, they present an able *résumé* of the present state of our knowledge of the relations of the functions of that organ to the various processes of vital action in health and in disease. Modern scientific work has widened our views of the hepatic functions, and the range of diseases which have some point of contact with those functions is extensive enough. Corpulence and emaciation, diabetes and gout, lithæmia, urinary calculi, every variety of digestive disturbance, and many forms of nervous dis-

turbance, neuralgia, vertigo, convulsions, many cardiac troubles, some pulmonary, and many cutaneous affections may be traced to some more or less direct connexion with physiological processes with which the liver is concerned, and are included among its "functional derangements." The extent to which the arrangement will turn out provisional only is yet uncertain. The tendency of recent science has been to show that the newly-discovered functions of the liver are shared by many other structures of the body, and it is obvious that much that now seems purely hepatic may turn out ultimately to be only partly, or even not at all, connected with the liver. But as an account, theoretical and practical, of what is now known and thought on the subject, Dr. Murchison's lectures leave nothing to be desired.

Introduction to Experimental Physics, Theoretical and Practical; including Directions for Constructing Physical Apparatus and for making Experiments By ADOLF F. WEINHOLD. Translated and Edited by BENJAMIN LOEWY, F.R.A.S. London: Longmans, Green, and Co. 1875.

WE regard this as an excellent work, especially as to its design and method. It seems to us admirably adapted to conduct its readers securely on their way, by making them employ their own senses and intelligence in working out their education for themselves; and teachers will find it very useful to turn to its pages for suggestions for experiments in demonstrating or illustrating their lessons in physical science. There is nothing so depressing to students as a lecturer with his MSS. in front of him, and the customary chalk and black board behind him. Where so much ground has to be traversed, it is scarcely to be expected that the subjects will be all equally well or fully treated of; but, taken as a whole, the book is an uncommonly good one—clearly written, admirably illustrated, and so minute in many of its details and descriptions that anyone gifted with ordinary intelligence cannot fail to understand, in other words "to bottom" what he is learning. In many respects, too, the author deals with his subjects in an original way, and always, it seems to us, so as to secure that the laws and principles shall be properly grasped and understood.

THE EXHIBITION OF THE ROYAL ACADEMY.

RUMOURS have been freely circulated during the last week or two that about 75 per cent. of the works of art offered to the Royal Academy for exhibition had been rejected, and there has been in consequence a good deal of anxious suspense amongst those waiting in doubt, as well as vituperation from the unsuccessful when they learned their failure. Whether the report as to the number be true or not, it is certain that the rooms of the Academy are well filled—over filled, indeed,—for many pictures occupy that "sky" line which was such an objectionable feature of the exhibitions in Trafalgar-square. Whatever may have been the merit of the rejected, there can be no doubt that the collection which will be opened to the public on Monday is generally of a very high order. It seems to us that there are more numerous examples of good, conscientious work than we have ever seen before on the walls of the Academy, although probably there is no one picture destined to create the exceptional *furore* which marked the appearance of Miss Thompson's "Roll-call" last year. That lady sends us, however, a picture which is very much in advance of her former work. It represents a square formed by the 28th Regiment and the Royals at the battle of Quatre Bras, and the period chosen is the last of a series of unsuccessful charges made against it by French cavalry. With the exception of a few horsemen, almost all falling beneath the English fire, the cavalry is not visible, but the spectator occupies its position and looks straight upon the faces of our men. And wonderful studies these Britons are as they receive the furious charge—the front rank kneeling, rear rank firing. Stern determination in some is contrasted with jeering levity in others, principally younger men, who cannot control their glee at the discomfiture of the enemy, even under circumstances suggestive of anything but laughter; for death is rife on every side in this field of trampled rye in which the battle is being fought. Admirably true is the peculiar shadow-like effect of figures seen through the smoke, whilst the infinite diversity of expression in the soldiers' faces is in striking contrast to most painted battle scenes, where one or two men seem to have stood as models for a whole regiment. In another room is a picture by a French artist, M. Philippoteau, No. 613, "La charge des cuirassiers français à Waterloo," which may worthily be compared with Miss Thompson's. It is an amazingly spirited representation of a battle-field, but errs, we think, in presenting too clear an atmosphere. Millais sends two landscapes, one of which, No. 74, "The fringe of the moor," will probably be thought too purple in colour, quite unjustly; but you need to stand 15 feet from the canvas to obtain the proper effect, and that will be impossible when the room is crowded. It is a noble landscape, full of delightful suggestions of a bright breezy walk over miles of heather. His picture called "No!" a young lady prepared to write a refusal to a letter containing an offer of marriage, is a marvellous effort of pourtrayal of physiognomical expression. You instinctively feel for the poor fellow who is going to be disappointed, and so evidently does the girl, although she has no doubt about the propriety of refusing him. Prinsep has some works of unusual grace and power; he has made a great step in advance this year. There are beautiful things, too, by Tadema, Calderon, Leslie, Brett, Rivière, Earle, and endless other more or less familiar names, which, if we were writing in another journal, we should like to dwell upon.

In the present exhibition there is a singular absence of works of art connected in any way with our profession. There is no portrait or bust of any great gun in medicine. A posthumous bust of the late W. A. Miller bears no resemblance to that distinguished chemist. We failed to find the usual number of sick children, which are the delight of many lady visitors. *En revanche*, however, there is a large picture by Marcus Stone, of much obstetric interest. A French soldier has returned from the wars to his cabin, to find his wife lately laid in with a baby. He embraces her with effusion, whilst his little girl endeavours to draw papa's attention to the cradle, placed somewhat injudiciously, we think, near the open door of the hut. The picture is beautifully painted, admirable in its sobriety of tone and pose of figures, but the subject is surely unfortunate. It is impossible to get up any excitement of feeling about a soldier who *can* only have been away for a few months, and then, too, one inevitably begins to wonder what has become of the monthly nurse—an idea fatal to pathetic emotion.

Mr. Seymour Haden sends a translation in etching of Turner's "Calais Pier." This work must not be looked upon in the light of an engraving of a picture. It is something very different from, and far beyond, this. It would be more proper to compare it perhaps to the task which a poet performs who takes a masterpiece of imagination and builds a poem upon it. We do not believe for a moment that such a fine piece of etching as this of Mr. Haden's has ever been produced before, and we cannot help feeling that the work gives us quite a new idea of the capability of the etching needle for broad and grand effects.

THE LANCET.

LONDON: SATURDAY, MAY 1, 1875.

THE progress of the debate on the Germ Theory of Disease can hardly be regarded as of a very satisfactory nature; and if, indeed, it be brought to an abrupt termination on Tuesday next, it will stand in the annals of the Pathological Society as a testimony to the inutility of discussions upon questions of theory for which facts are still too few and incomplete. For, valuable as have been the remarks of the seven speakers who have debated the question, it is certain that they have left (with perhaps the exception of Dr. BASTIAN) many of the aspects of this many-sided question out of sight, so that the impression that is left upon the reader is much the same as that presented by an unfinished picture of which it is difficult in places to trace the outlines. It may be that the cautious wisdom of Dr. SANDERSON in deprecating any departure from facts, and who, in placing before the Society some of the most striking facts ascertained with regard to the association of organisms and diseased processes, yet declined to draw any conclusions from them,—it may be, indeed, that the position taken up by this eminent pathologist has had not a little influence in limiting the area of discussion. In spite of this, however, there have certainly been propounded as many theories as facts; and it is difficult to see how a debate avowedly based upon a theory could be otherwise furnished.

By far the most powerful arguments in favour of a germ theory were adduced by Dr. MACLAGAN, who limited himself almost entirely to its bearings upon the phenomena of the specific fevers. He did well, also, in stating at the outset that there was no necessary incompatibility between the general doctrine of heterogenesis and the special question of the germ theory of disease—a statement which happily precluded the debate from, shall we say, degenerating into a controversy on spontaneous generation. The part played by bacteria—which, as was pointed out in a recent article, is the question upon which we require definite knowledge—has, it appears to us, been but little elucidated in the progress of the debate. Dr. BASTIAN ridiculed the idea that these organisms are carriers of contagion; and Dr. SANDERSON showed that, although their presence in septic fluids was invariable, they could not be held to be essential to these fluids, which retain their septic properties when these organisms are removed; while Dr. MACLAGAN, effectively replying to the argument against the germ theory that the number of bacteria present in such a fluid increased in proportion to the diminution in the intensity of the septic virus, propounded the view that these organisms arise at the expense of the *contagium* itself; this being, he held, a living entity "minute beyond the reach of all sense." Should this view be accepted it would remove one of the greatest barriers between the contending parties; but unfortunately, forcible as it appears, it bears too much the aspect of a *petitio principii*. At any rate this admission by Dr. MACLAGAN deprived Dr. DOUGALL's speech of much of its point—a speech which was an able exposition of the physico-chemical view. Dr. BASTIAN, in his opening address, dwelt but little upon the view which he supports as an alternative to the germ theory, satisfying himself rather with demolishing that theory than with demonstrating his own; so that the remarks of Dr. DOUGALL are all the more valuable. On the ground of simplicity alone, it must be confessed that the germ theory far excels the doctrine that "contagious units" are "fragments of dead organic matter, whose elementary particles are in some occult state of chemical union, and capable of imparting their condition to other bodies susceptible of the same change." Dr. MACLAGAN admirably performed the task he had set himself, and made a really valuable contribution to the debate in his demonstration that the phenomena of the febrile state, with those of contagion, specificity, protection, &c., are best explained upon the hypothesis that for every specific fever there are specific contagium particles which live and multiply at the expense of the tissues, but which, like other parasites, require a special nidus for their development, that nidus being the site of the local lesions typical of the special kind of fever. It will be interesting to see how these arguments are met by Dr. BASTIAN. Certainly they were not touched by Dr. DOUGALL, who attacked the question from a different side in his demonstration that organisms are unessential to the processes of putrefaction or fermentation. We were glad to observe that Mr. HUTCHINSON pointed out the different nature of the inquiry as regards septicæmic and locally contagious processes in comparison with that upon the specific fevers; and his views upon what may be shortly termed "auto-inoculation" are worthy of all consideration, especially the action of antiphlogistics and the power possessed by certain "antiseptics" of checking cell-growth. Mr. KNOWSLEY THORNTON, on the other hand, while disputing the identity of the products of inflammation and those which specially give rise to septic processes, pointed out the fact, known to all surgeons who follow Mr. LISTER's treatment in its entirety, that these same antiseptics, when too concentrated, instead of repressing, encourage cell-growth. There is not much essential difference between the views here propounded by Mr. HUTCHINSON and those adopted by Dr. BEALE (whose absence from the debate is to be regretted); for the particles of degraded protoplasm of the latter, with their inherent latent vitality, can, without much difficulty, be held to be the same as those products of inflammation which, derived from the blood and tissues, assume contagious properties. One weak point in Mr. HUTCHINSON's argument was that upon which he explained the spread of hospital diseases; for if it be necessary, as he holds, that the contagious pus-cell should be living, it is difficult to understand how its vitality should be such as to be retained when transferred by sponges &c. in the dressing of wounds. For pus can only be considered living at its earliest formation, before it even merits the name of pus. In conclusion, we must repeat that, should the debate terminate here—and it was indeed almost on the point of termination at the last meeting,—the result cannot be viewed with satisfaction, for it

will have served for little else than a demonstration of the many varieties of opinion that are afloat on the subject, and will have but little practical value.

THE recent verdict of manslaughter against a midwife at Manchester, on the ground of having conveyed puerperal fever to one of her patients, after having had several similar and fatal cases, is one that cannot be too seriously considered by all obstetric practitioners. We are not prepared to say that either the verdict or the punishment of six months' imprisonment to which the midwife is sentenced is, under the circumstances, wrong. She had had so many cases, so many deaths, and, withal, so many warnings, as to make her persistence in practice amount to a criminal perverseness that could not be overlooked. Nor do we see that a medical man who persisted, under similar circumstances, would be much more likely to escape legal censure. Still, we cannot but feel that the legal doctrine involved in this sentence is one that will have to be very carefully and tenderly used, unless midwifery practice is to be made so harassing as to discourage and estrange the best practitioners. Such a case as that of ELIZABETH MARSDEN, we repeat, is so bad as to be plainly indefensible. It will only confirm good practitioners in acting on a principle they have long recognised—that of desisting from practice when it is clear to them that there is risk of their conveying puerperal fever. Their appreciation of this risk will be apparent to them before such serious accumulation of proofs as obtained in the midwife's case.

But it is well that we should thus early put in an objection to the frequent and careless use of this legal doctrine, and point out how liable it is to abuse. We are not much afraid that any jury would be likely to find an intelligent medical practitioner guilty of manslaughter in this way. He would be too much on his guard, too attentive to disinfection and cleanliness, and too sure to desist, if necessary, from practice at an early period, to incur the risk of such a sentence. But what is within the bounds of possibility is that the legal doctrine might be used by unprincipled or ungenerous patients to initiate legal charges, the refutation of which would only be less annoying and less costly than a verdict of manslaughter. We see by the discussion at the Obstetrical Society how difficult is the definition of puerperal fever even by men of obstetric eminence. So difficult is this definition that almost any puerperal death could by vagueness be brought under this diagnosis, or by ingenuity be placed under some other name in the nosology which would "smell as sweet." It is notorious that men avoid the name as much as possible, and give prominence in their death certificates to the local lesion which they suppose to obtain, or to the morbid poison—such as that of scarlatina or erysipelas—which they think they can trace in the causation of the disease. The one thing that would be necessary under these circumstances to give cantankerous people a plea for prosecution would be the occurrence of two puerperal deaths within a limited period in the same practice, that could, by imagination, be considered deaths from puerperal fever. The cases might be perfectly distinct in character, nay, even neither of them might be puerperal fever, and yet facts might be strained and twisted to the purposes of a prosecution. It is right by anticipation to protest against any such attempt to harass medical men. We believe that with strict cleanliness and the free use of disinfectants in washing, and changes of clothing if necessary, the risk of carrying disease is very slight. Moreover there is some risk in a medical man taking the course of declining to meet his midwifery engagements. All the speakers in the current debate on puerperal fever admit the influence of mental conditions and feelings in the causation of puerperal fever. We can imagine few things more likely to be injurious to a lying-in woman than to be informed on the eve of her confinement that her own medical man declines to attend her, on the score of some of his puerperal patients having died. Of course such a risk is not to be compared with the risk of being attended by a practitioner who has actually conveyed the disease of puerperal fever, or who is even in attendance on an actual case of the disease. But it is an injurious influence that is not to be inflicted lightly or on grounds of mere timidity; and it will be a bad legal decision that does not sustain medical men in doing their best in the trying exigencies of obstetric practice. We have not much fear of such a decision. Patients and their friends are for the most part generous in judgment, and perhaps there is a greater appreciation of our difficulties by the public and by the Bench than we think. Let us do what we think right. It must needs be occasionally that severe obstetric cases will occur together, just as, according to a strange experience of medical men, other rare cases happen together. If they are unmistakably alike and of the nature of puerperal fever, let us lose no time in desisting from practice; if they are perfectly distinct in character, let us act independently. We should apply the same advice to the case of midwives. Few, let us hope, will be so obstinate as ELIZABETH MARSDEN. For the rest, they are entitled to the good advice and friendly help of medical men in the painful emergency of having puerperal fever in their practices, and to be shielded from harassing legal proceedings.

THE opposition to the Contagious Diseases Acts has at various times assumed different aspects. The Acts have been represented as irreligious and unconstitutional in principle, demoralising in their tendency, and oppressive and tyrannical in their operation; but the point of attack has been of late that they are inoperative and inefficacious in regard to the prevalence of those physical evils the prevention or limitation of which was the main object of the Acts being passed. It is not a little remarkable that what carried conviction to an official statistical authority has had an exactly opposite effect on amateur statisticians. Dr. BALFOUR, it is well known, was opposed to the principle of the Acts, and sceptical of their accomplishing any good; but he was converted by those very figures which have furnished a weapon of attack to others. There is a right and a wrong method in regard to statistics, as in other things; and it is possible that these opposite results are to be explained by the fact that Dr. BALFOUR, from knowing what he was about, took the right method, which the others did not. However this might have been, attention has recently

been directed to the subject in connexion with a paper read by Mr. ACTON before the Royal Medical and Chirurgical Society. In 1846, and again in 1860, Mr. ACTON brought the subject of the relative prevalence and severity of syphilis in the British army as compared with that of France and Belgium before this Society; and he pointed out that, while the amount of this disease was so limited as to form, practically, an insignificant cause of inefficiency in the two latter armies, it contributed so large a proportion of inefficiency in the British army as 181 per 1000, or one in every five men. During the autumn of 1874 Mr. ACTON visited the Continent with the express object of prosecuting an inquiry into the present condition of the French and Belgian populations in regard to this disease, so as to enable him to institute a comparison between the three cities—Paris, Brussels, and London,—and determine what influence continental police regulations had exercised in limiting or averting its spread. In Brussels he found that the police regulations had nearly stamped it out; and in Paris he only discovered 14 cases of primary and secondary syphilitic disease among the 3841 soldiers forming the garrison of Paris, as compared with that large amount of disease among the Foot Guards quartered in London which anyone may ascertain for himself to be a fact beyond cavil, and not a figure inserted in a statistical table by some interested official, as the opponents of the Contagious Diseases Acts strive in vain to prove. More disease of this kind is present in a single battalion of 500 soldiers in London than in 3841 troops forming the garrison of Paris. Restricting his comparison to districts in England, Mr. ACTON showed that in the garrison of Woolwich, which is under the protection of the Acts, only one man is affected out of seventeen, instead of one in six, as in London. We need not follow him into the comparisons he instituted in regard to the other sex or other classes of the community in this country and abroad, or into his inferences from the figures and statements of fact he adduced in his paper; but he contended that the experiment of legislative supervision, both in this country and on the continent, had succeeded in a sanitary point of view beyond the expectations of its supporters. Dr. DRYSDALE was unable to assail Mr. ACTON's accuracy in regard to the immunity of the troops in Belgium and Paris, but was content, in military phraseology, to "take up cover" behind the position that the question of preserving soldiers from syphilis was a very different one from that of keeping off the disease from the general population. Assuming such to be the case, it would not, however, be very difficult to discover an explanation of it. Dr. BIRKBECK NEVINS displayed considerable ingenuity in the way in which he illustrated the force of the remark that you can prove anything by figures. While some of his arguments were irrelevant, others were drawn from insufficient or selected data, or based upon a comparison of data that were not properly comparable at all. As regards the prevalence of gonorrhœa, we do not think that any medical man would expect that the effect of the Acts could be fairly tested in this direction. As Inspector-General LAWSON well pointed out, the whole course of the prevalence of venereal disease in the army must be taken for a number of years in order to arrive at correct conclusions; and no inference can be drawn from a comparison between a minimum and maximum year. The results of Dr. NEVINS's statistics were, in fact, vitiated by the fallacy underlying them. Dr. DE CHAUMONT's diagrams exhibited the effect of the Acts in a very plain and unmistakable way. The diagrams gave curves representing the strength of the Royal Engineers and the cases of disease, and showed that in the period unprotected by the operation of the Acts the cases of disease bore a much greater proportion to the strength than afterwards. In the unprotected period the curve of admission was above the line of strength; in the protected period it was below, and fell in a diminishing ratio. And we think that common sense and experience, apart from figures, would lead anyone to expect that it must be so. It is not a little curious that the opposition to these Acts, the scepticism as to their results, and all the contention as to the arithmetical expression of these results, have not originated among those who have made themselves practically and personally acquainted with their working, but mainly with those who have studied the subject from Blue-books and the depths of their moral consciousness.

WE have already on more than one occasion, and at considerable length, criticised the various provisions of Mr. SCLATER-BOOTH's Sale of Food and Drugs Bill. That Bill we felt ourselves compelled, in the interests of the public, to condemn in no measured terms. We said of it, and we hold to the opinion still, that if the Bill had been framed by a conclave of adulterating manufacturers and tradesmen it would have been scarcely possible to produce a measure which more completely provided for and sanctioned nearly every conceivable adulteration. We described the Bill as far inferior to the Adulteration of Food Act of 1872, and which it has now superseded, and as undoubtedly a retrograde step. It gives the sanction of law to various practices and proceedings condemned by the former Act, and in the exposure and for the punishment of which many sanitarians have long and earnestly worked.

We had entertained the hope that the Bill would have been materially amended in committee; but this hope is now nearly extinguished. The first five clauses of the Bill have been passed, retaining nearly all the objectionable features. The word *knowingly* is still retained in Clauses 3 and 4; and Clause 5 has been altered for the worse, and has been so modified as to allow of the artificial colouration of tea and other articles. Clause 2 has been altered so as to include water as an article of food. This alteration is one to the detriment of the analyst, since in no case does he receive a higher remuneration than one guinea per sample. Now this sum is utterly insufficient to remunerate him for the time and expense which must be incurred—making such an analysis as will allow of his expressing a definite and reliable opinion as to the quality of any water. It is evident that no hope need now be entertained that the House of Commons will do anything to improve the Bill, and to check the very scandalous practice of adulteration which has so long prevailed to the injury of the public in pocket and health, and to the discredit of the nation.

Our last hope is that the House of Lords will come to the rescue and insist upon altering the Bill so as to make it

something more than a mere cover for the legalisation of adulteration. It is to that House that we are indebted for the Adulteration Act of 1872, which, whatever may have been its defects, was infinitely superior to the discreditable measure which claims as its authors Mr. SCLATER-BOOTH and Mr. CLARE READ.

Annotations.

"Ne quid nimis."

LONDON MORTALITY AMONG ELDERLY PEOPLE DURING THE PAST WINTER.

DURING an English spring it is always rash to speak of winter in the past tense, but it is probably not being too sanguine to expect that the decline in the death-rate which the last few weekly returns have exhibited will not now receive any serious check. It is time, therefore, now to look back, and count the cost of the long and severe winter, which we have ventured to speak of as past, in London alone. The winter may be said to have lasted from the middle of November to the end of March. During this period of 20 weeks 37,326 deaths were registered in London, equal to an annual death-rate of 28 per 1000. In the corresponding 20 weeks of more moderate temperature in 1873–4, the deaths in London were 32,378, and the death-rate only 25 per 1000. The excess of deaths during the past winter in London may be, therefore, put down roughly at 5000, of which excess nearly 2000 were of persons aged upwards of 60 years. According to the English Life Table, the average annual rate of mortality among persons aged upwards of 60 years is 71·7 per 1000. During the 20 weeks of last year the rate of mortality in London among persons of this age was so high as 117·6, against 94·8 in the corresponding period of the previous winter. Even during the first three weeks in April the deaths of persons aged 60 years and upwards in London exceeded by nearly 100 per week the numbers returned in the same period of April, 1874, which excess is proportionally a larger one than that which prevailed during the 20 weeks of winter.

ARMY RECRUITS.

THIS subject still continues—as well it may on account of its great importance—to excite much attention and discussion. According to Dr. Leith Adams, youths of eighteen years of age and under, with low chest-girth and stature, are rapidly taking the places of able-bodied men, and he contends that it is absurd to suppose that the general run of infantry regiments are, as regards the physical capabilities of the men, fit for the hardships and fatigues of warfare, or for the trying climates to which the British soldier is exposed. The experience and intimate knowledge which Dr. Adams possesses must lend weight to his opinion, and there cannot be a doubt, we think, that physiological considerations would indicate what experience has taught us—namely, that young men under twenty are unfit for the duties of soldiers, although they may be undergoing the necessary training for that purpose. But the answer which the Duke of Cambridge makes to this is a very simple one. You can't get the men when *you* like, but when *they* like to come, and if you don't take them under twenty you won't get them at all. It is a voluntary, and not a compulsory system like that on the Continent, and the nation is very averse to increasing the army estimates. The principle of Lord Cardwell's system is, we presume, that a large number of young men should be passed through the army before going into the reserve, by which means it was believed that recruits would be secured at the most suitable time for themselves, and, after being trained, go to form a reliable reserve. But it is contended that if mere lads be enlisted on the short-service system, the result must inevitably be an army of very young men. Now, whatever may be the opinion entertained as to the spirit and fighting qualities of young soldiers, it is clear that, physically, the systems of such men cannot withstand the fatigue and exposure which would try the energies of fully grown men; and if a recruit be enlisted under eighteen, with the option of going in six years, his services are lost, except for the reserve, at the very time when, by reason of his age and training, he is most efficient. And then comes the question whether the reserve may be reckoned upon as an efficient force? It must be remembered that the recruiting ground of Ireland no longer yields the crop it once did, and the number and variety of occupations open to young and able-bodied men make the problem of recruiting for a volunteer army an increasingly difficult one for Mr. Gathorne Hardy to solve.

THE HEALTH OF LIVERPOOL.

WE have received the annual report of Dr. W. S. Trench, medical officer of health for Liverpool, a town which, as all sanitarians know, occupies an unpleasantly prominent position in the bills of mortality. This report contains a vast amount of useful statistical data, very systematically tabulated, and, as they deal with large numbers, show in many respects how this part of a health officer's duties ought to be performed.

During the year under consideration the death-rate of the borough of Liverpool was equal to 31·9 per 1000, that of the parish to 36·2, and that of the out-townships to 28·5 per 1000 of the population. Zymotic diseases occasioned 4793 deaths, and so accounted for 29·3 per cent. of the total mortality, and of these scarlatina stands pre-eminent, having killed during the year 1911 persons. Ten years ago the Health Committee caused to be erected two large disinfecting depôts at the north and south boundaries of the town, since which time more than 330,000 pieces of infected clothing and bedding have been subjected to the dry-heat process. Dr. Trench complains, however, that even now the advantages of this establishment, and of a staff of inspectors maintained for purposes of fumigation, do not seem to be appreciated, as in a vast number of instances information as to the existence of zymotic disease in a particular quarter of the town is derived from the mortality returns, when, of course, preventive measures are wellnigh useless. The chief event in connexion with the history of small-pox was the arrival of a body of emigrants, who came from London, but were stopped by the medical inspector of the Board of Trade after they had embarked, because several were found to be suffering from small-pox. (The history of these emigrants, and the action taken by the port authorities in London and at Liverpool, were much discussed at the time, and showed the unsatisfactory condition of our sanitary laws.) A total of 17 persons were attacked by the disease, but in consequence of the energetic measures taken by Dr. Trench and his staff, the epidemic did not extend to the town, although all the emigrants were disembarked, and housed temporarily in the workhouse. Under the head of "Sanitary Work," the officer reports 1091 lodging-houses on the register, to which more than 35,000 visits were paid during the year, resulting in the discovery of 42 cases of overcrowding, 204 of dirty dwellings, and 165 of other breaches of the law. The mortuaries were used in 21 cases, and 39 persons were removed to hospital under the provisions of the 26th section of the Public Health Act. A total of 69,154 articles were disinfected during the year,

and 3515 houses were fumigated. We are somewhat disappointed to find that Dr. Trench, in presenting this very valuable year book, draws no deductions from it, by way of assisting his brethren and the public. Nothing is said as to port sanitary work, for which we believe the Health Committee of the town is now responsible. As the writer has left us to draw our own lessons, we may recur to the subject again in a critical rather than a descriptive aspect, and have but to repeat that Liverpool affords for all varieties of sanitary work a more important field of operations than any other place in the kingdom.

THE FACTORY ACTS.

THE last report of Mr. Alexander Redgrave, senior inspector of factories, records some important particulars collected during the half-year ending October, 1874, respecting defects in arrangement, ventilation, and overcrowding of workshops. These evils appear to exist chiefly in printing-offices and the work-rooms of tailoresses and dressmakers. Many printing-offices, both in London and the provinces, are located in old houses, every room from attic to cellar being more than fully occupied by some branch of the business. The "reading-closets," each of which accommodates a man and a boy, are in many cases miserable unventilated holes, in which, almost throughout the year, and sometimes at all hours of the day, artificial light is necessary. The making of coprolite manure is so injurious that, until recently, a man's capability to work was limited to five or six years. In all these trades reforms have in most cases been effected. The printers' and dressmakers' work-rooms have been relieved of a proportion of their occupants and ventilated; and by making the mixing chamber air-tight, preventing the escape of sulphurous acid, and providing for the escape of fluoric acid gas, an enormous improvement has been effected in the average health of the operatives. Again, the weaving of horsehair seating and straw-plaiting are, or rather were, trades that, as formerly carried on, were most detrimental to the health of young children; large numbers in villages in Suffolk, Bedfordshire, Herts, and Essex were crammed into one room, "regardless of everything but the weekly pence to be obtained." Although, as regards straw-plaiting, not generally overworked, they were put to plait as soon as their fingers could hold the straw, and, of course, learnt nothing else. One school in Essex, at which lace-making is taught, is described by the inspector as held in a room containing 36 children, each child having 25 cubic feet of space, and another room with 10 children, each with 34 cubic feet. It appears, however, that official exertions have resulted in the closing of more than half these schools, the actual industry not being much interfered with, as they carry on the occupation at home, sitting and working on fine days at the cottage door.

One of the trades as to which some very interesting particulars are recorded is that of fish-curing, as carried on on the Norfolk and Suffolk coasts. Being a season trade, it is pursued for about three months of the year only, and, of course, under great pressure, it being the first object of fishermen to bring their fish into harbour, and thence to the market, as quickly as possible after the catch. So that, as a result, the women, who are exclusively employed in curing, often work all night, and sometimes also throughout the day. Some modifications as to these excessive hours will, however, shortly be made.

The Act passed last session with reference to textile factories has settled in a satisfactory manner the question that has for some time been agitated in Yorkshire, Lancashire, and some parts of Scotland, having for its object a reduction of labour of young persons and women. The matter has, after much discussion, been settled by permitting labour to commence at any time between 6 and 7 o'clock A.M., leaving the operatives and employers to settle the hour between themselves. As a practical result, the earlier time of commencement is still adhered to. The extreme time that can be worked by any factory now is fifty-six hours and a half per week, and Mr. Redgrave considers that the new Act improves and confirms the chief features of the old one, and the special clause that requires a rest after continuous work of four hours and a half, instead of five hours, is acknowledged by the manufacturers to be a most valuable alteration.

The above notes form a very brief but important retrospect of facts in connexion with the sanitary condition of our manufacturing population. They show not so much perhaps that the law is strictly observed as the benefits to be derived from official supervision judiciously and intelligently exercised. We must reserve the report of Mr. Baker for a future notice.

INTERNATIONAL HYGIENE: QUARANTINE.

AT the meeting of the Epidemiological Society on the 13th of April, Dr. Seaton read a paper on the International Sanitary Conference held in Vienna last year. It will be remembered that Dr. Seaton was one of the British representatives at that Conference, and his paper was of peculiar interest from entering into explanations of the manner in which the business of the Conference was conducted and its various conclusions and recommendations arrived at. The impression conveyed to the meeting by the paper was highly favourable to the thoroughness with which the Conference, as a rule, had done its work, and to the remarkable business capacity it had displayed. Previous International Sanitary Conferences had occupied many months in their proceedings; the Vienna Conference had occupied one month only, and its work, it must be confessed, will contrast favourably with that of preceding Conferences. Dr. Gavin Milroy opened the discussion which followed the reading of the paper, and, except some incidental observations of other speakers, he alone spoke in the course of the evening, further discussion being adjourned until the next meeting. Not unnaturally, Dr. Milroy was not satisfied with the qualified assent to measures of quarantine which had been given by the British delegates at the Conference. He admitted the important gain to international hygiene which had been obtained from the acceptance by the great majority of the Conference of a system of medical inspection such as that practised in English ports. He admitted also the considerable modifications of quarantine suggested by the Conference, wherever quarantine might still be adopted. But he nevertheless felt that it was to be regretted that the unclean thing should ever have had a trace of countenance from the British delegates. He was afraid that this even modified approval would serve as a pretext to our colonies for taking no measures to abate or remove the follies of quarantine as practised by them, and that it would place England in a false position with continental nations maintaining quarantine.

Dr. Seaton, who replied to Dr. Milroy's observations on the moment, while sympathising with Dr. Milroy's feelings, said that the question the Conference had to deal with was a very practical one, and from the time that it became obvious that the delegates of several States were not prepared to recommend an abandonment of quarantine, the proper course appeared to be that some common understanding should be arrived at, if possible, which would place the question on a more satisfactory footing. By this course it became possible to set forth the conditions under which quarantine could, in the general opinion of the Conference, alone be carried out with reasonable prospect of

advantage, and to obtain its unanimous consent to the adoption of a proper system of medical inspection where these conditions did not exist. This conclusion, practically, reduces the observance of quarantine to an absurdity, except in a very few localities. But this was not all; for the quarantinists on their part amicably met their opponents by assenting to a series of conclusions as to the mode of conducting quarantine, which, if put in practice, would very sensibly mitigate its annoyances and evils. As it was found impossible to secure unanimous approval of the abolition of quarantine, the next best thing to do was to diminish its evils; and this Dr. Seaton held had been fairly accomplished. The delegates had foregone individual conclusions to do a practical work practically. A future Conference would, no doubt, carry the work of amelioration or abolition of quarantine still further.

THE COST OF UNSEAWORTHY SAILORS.

ANOTHER proof (if indeed another were needed) of the necessity that exists for the medical inspection of seamen has been recently afforded by some of the chief steamship-owners, who object to be charged with the conveyance home of distressed British seamen from foreign ports. It is not, perhaps, generally known that the public pay upwards of £30,000 annually for sending home from foreign and colonial ports a vast amount of damaged vital material in the shape of hopelessly sick seamen. A large proportion of this unserviceable class, when cast adrift, on arrival in London, find their way into the Seamen's Hospital at Greenwich, and constitute a coterie first at that institution, and afterwards at the Greenwich Union, known as the doctors' bad bargains. For they include cases of advanced phthisis and organic heart disease, chronic rheumatism in all its forms, ruptures, old ulcers, and tertiary syphilis. Anyone who took the trouble to glean the correct antecedents of these persons, would find that at least 80 per cent. had signed articles in the United Kingdom, and gone to sea physically unfit for duty, that they had done little or no work on the outward passage, had spent a few weeks in hospital at the first port of call, and had been forced by law on the first homeward-bound ship as passengers at the munificent rate of 2s. per day. As steamships nowadays command the best hands, so they contribute to the country fewer bad bargains than the sailing ships; but as the steamships have to convey home the majority of these unseaworthy sailors, *nolens volens*, we counsel steamship-owners to get out of the difficulty indirectly, and to improve the quality of seamen directly, by urging Sir Charles Adderley to introduce into the Merchant Shipping Acts Amendment Bill a clause enforcing, under certain well-defined provisions, the medical inspection of seamen. As the law now operates, the following obtains: (1) persons physically fit for work ashore, but unfit for work afloat, go to sea; (2) the able seamen are overworked, the ship is endangered if stress of weather occurs, and the owner is virtually robbed of wages; (3) the steamship-owners are hampered by intermittent and very unprofitable super-cargoes; (4) the country is burdened with a large annual expenditure, the hospitals are also saddled with a number of incurable cases; and, finally, the poor-rates in general, and (as far as London is concerned) the Greenwich rates in particular, are burdened with an increased and avoidable charge. These are the commercial aspects of a question that has sanitary as well as commercial relations, and it is a matter of congratulation that the large shipowners are compelled to bring home the "bad bargains" of others, because it will show to the former the importance of adopting means to secure healthy hands in all classes of work afloat.

THE CLINICAL SOCIETY.

IT was impossible that so important a question as the identity of croup and diphtheria, upon which every physician must have formed some conclusions, could remain limited to our columns, where it has been discussed for the past four months. Hence we are not surprised to find that the subject came up at the Clinical Society at its last meeting, it being introduced in an able paper read by Mr. R. W. Parker. The case upon which the discussion was based was a most interesting one—viz., scald of the glottis with formation of false membrane in the air-passages. Mr. Parker expressed his firm belief in the etiological unity of all membranous inflammations of the larynx, and thought that his case, in which the parts most exposed to the irritant (steam) were free from false membranes, together with the fact that six days elapsed before the laryngeal mischief was marked, proved that the formation of such membranes depended upon some specific cause apart from mere irritation. Thereupon the supporters of what may be called the dualistic view, including Drs. Dickinson, Greenhow, Hilton Fagge, and Duckworth, strongly opposed Mr. Parker's arguments, Dr. Dickinson holding it in the highest degree improbable that the child should have had "scald of the throat one day and diphtheria the next." The arguments raised were not, however, characterised by any novelty, and were well met by Dr. Cayley in his brief but practical remarks; and not the least valuable point in favour of the doctrine of identity was the statement by Mr. Parker that he had never met with a case of purely sthenic croup in an ill-nourished child. All the speakers, however, agreed upon the want of any anatomical distinction between the two affections, and the question was debated chiefly on clinical grounds. But it will be seen that from the clinical side alone the distinctions rarely hold good, as the cases quoted by Mr. Parker and Dr. Cayley showed; and the former gentleman effectually disposed of the argument that the sequelæ of diphtheria should be regarded as diagnostic. We believe that the question is likely to be again debated next session at the Medico-Chirurgical Society, but judging from the difference of opinion that exists on the subject, to which our own columns and the discussion at the Clinical Society bear witness, we fear that it will be long before anything like agreement will prevail.

EXPERIMENTS ELUCIDATIVE OF MYELITIS.

FROM a series of experiments on inflammation of the spinal cord, carried on in Stricker's Laboratory at Vienna, Mr. D. J. Hamilton, author of the Astley Cooper Prize Essay for 1874, on "Injuries and Diseases of the Spinal Cord," has obtained certain facts which will probably tend to throw a great deal of light on many morbid conditions met with in different parts of the cerebro-spinal nervous system. The most extraordinary phenomenon is the change that takes place in the nerve-fibres. He has found, as an invariable condition in all his experiments, that within twenty-four hours the axis-cylinders contract irregularly, so as to form a series of oval swellings throughout their course. These swellings are connected by attenuated portions of axis-cylinder, which ultimately giving way, leave the contracted portions as large translucent colloid-looking bodies. The next change consists in the fissiparous division of these new formations into a number of smaller bodies, which assume a rounded form, become clear and nucleated, and wander forth into the area of greatest suppuration as pus-corpuscles. Where the inflammation is less intense they remain as round translucent bodies, in every respect identical with the so-called *colloid bodies* so abundantly found in chronic inflammatory affections of the nervous system. The

relation of this process to what is seen in locomotor ataxia, syphilitic inflammation of the brain, and many other nervous lesions, becomes very interesting, and it is exceedingly probable that the appearances met with in these diseases correspond to, or are modifications of, what has been artificially produced in the above-mentioned experiments. Other histological elements, and especially the bloodvessels, all participate in the inflammatory process, but as it is intended to publish the experiments more fully at a later date, we refrain from giving any further description at present.

STRUCTURE OF THE PACINIAN CORPUSCLES.

IN a paper on the Pacinian Corpuscles, just published in the *Quarterly Journal of Microscopical Science*, Dr. Schäfer states that a Pacinian corpuscle may be looked upon as consisting of three parts—the central fibre, the core, and the capsular enclosure. The central fibre presents a distinct appearance of fibrillation, the fibrils, as a rule, crossing each other very obliquely. It is enlarged at the extremity in most cases, but occasionally there is no distinct swelling, the fibre being merely marked at its sides with minute denticulations or projections, from which, in preparations stained with chloride of gold, fine fibrils sometimes appear to proceed outwards. The terminal enlargement, when present, is granular or homogeneous, and refracts light strongly, and it may contain a nucleus. The white substance of Schwann sometimes accompanies the central fibre for a short distance. No sheath of Schwann could be discovered in any instance covering the central fibre. In all respects the central fibre behaves like an axis-cylinder. In regard to the core, in many, if not in all instances, an outer nucleated part, of variable extent, may be distinguished from the almost homogeneous non-nucleated substance which immediately surrounds the central fibre. Next, in reference to the capsular envelope, Dr. Schäfer's observations support the view of Axel, Key, and Retzius, who regarded the supposed simple capsules as consisting of two layers of flattened cells placed back to back. The intercapsular spaces are filled with an albuminous fluid, and are also pervaded by white and elastic fibres. In regard to the homology of the several parts of the Pacinian corpuscles with those of a nerve-fibre, Dr. Schäfer considers the central fibre as the axis-cylinder. The main part of the core corresponds with the delicate protoplasmic layer which lies between the sheath of Schwann and the medullary sheath of a nerve-fibre, whilst the outermost portion of the core is distinctly continuous with the fine connective tissue in which the nerve-fibre lies embedded within the neurilemma. The outer layers of the Pacinian body are continuous with the corresponding layers of the perineurium.

THE BIRMINGHAM MEDICAL INSTITUTE AND HOMŒOPATHY.

THE members of the Birmingham Medical Institute may well ask to be saved from their friends. A change has taken place in the aspect of affairs which is quite characteristic of the people of Birmingham. Certain clergymen and other persons equally ignorant of the sentiments and aspirations of medical men have decided that the proposed institute cannot be properly established, and that medical science cannot progress, except by their aid and interference and the assistance of various ladies and gentlemen of the town, to whom they have addressed circulars to call a public meeting to be held on Tuesday next. This turn of affairs will doubtless open the eyes of those who have blindly followed Dr. Heslop and his supporters, and have violated the traditions of the profession by admitting professed homœopaths into the institute. Already there are signs of repentance, and several supporters of the original committee are crying "*Peccavi, peccavi!*" What will be the upshot of this agitation we cannot tell. Whether those members of the profession who undertook to support the institute before the question of the admission of homœopaths was raised will deem it expedient to retire or not, is still *sub judice*. No one could blame these gentlemen if they should decide to sever their connexion from the institute and withdraw their support and proffered donations; but it will be for them to decide collectively whether or not their personal interests and the advantages which the institute will undoubtedly offer are to be weighed against this homœopathic pill.

THE DERBYSHIRE NURSING AND SANITARY ASSOCIATION.

WE are glad to furnish an abstract of the last Annual Report of this Society, which has now existed for ten years, and has done a vast amount of good in the district over which its labours have extended. The objects of the Society are (1) to provide thoroughly educated nurses for the sick amongst the poor and in private families; (2) to organise means which shall tend to the prevention and removal of disease. The Society now possesses a staff of thirty-nine nurses, under active, constant, and careful superintendence, and the earnings of these nurses amounted during last year to £1185—a sufficient indication, as the Report remarks, "that their services are highly valued." During the year five of the staff have been employed in gratuitous nursing, 450 families having been thus benefited. The Report also states that 4247 pints of beef-tea have been supplied, a large number of dinners have been sent out, and more than 800 people have dined at the institution. Couches, bed-rests, air-beds and cushions, chairs, blankets, and waterproof sheeting have been lent to a very considerable extent, and about fifty persons have been sent away to various convalescent hospitals or to the seaside. An unnecessary prominence is given to a record of "the fact that we do not spend any of our money in stimulants." The above brief abstract indicates a large amount of useful work, thoroughly and unostentatiously done, at comparatively small cost, and is on this score alone specially commendable.

A CORONER ON DOCTORS.

THE Rugby coroner, Mr. Poole, having to comment on the death of a man who was found dead in bed, and who had not been attended by any medical man, thought fit to deliver himself of his opinions on the utility of doctors. Mr. Poole's personal opinions are doubtless of little importance, but when a gentleman uses the coroner's position to express opinions which the bulk of mankind would regard as unreasonable, not to say absurd, they should perhaps not be treated with too much contempt. Mr. Poole did not wonder at people being opposed to doctors, as they were troublesome sometimes. He said the mischief was that the deceased—who was found, post mortem, by Dr. McKenzie to have died of hæmorrhage into the pericardium—did not send for a doctor. A juror having remarked that perhaps deceased, like himself, did not believe in doctors, the coroner said his opinion was that they killed as many as they cured. Dr. McKenzie having requested the reporters to take down the seemly words of the coroner, that official said doctors were a great benefit to mankind, but what he meant was they could not always be right. Men in Mr. Poole's position should be able to say what they mean. Probably he is as ready as other men in Rugby to send for a doctor when he needs one, and would be very much put out if his summons was disregarded.

METROPOLITAN WATER-SUPPLY.

A DEPUTATION has waited on the President of the Local Government Board to oppose Colonel Beresford's proposed Water Bill. The deputation was representative of the London Water Companies; it was introduced by Mr. Coope, M.P., and Mr. Baxter acted as spokesman.

It was urged, in the first place, that the course proposed—viz., to "substitute Commissioners for the existing Water Companies"—was one without precedent. What, we would ask, was the substitution of the Post Office for the Telegraph Companies but an exactly similar proceeding? The deputation also feared that the Commissioners might prove extravagant, and that they would not work the metropolitan water supply so profitably as the Companies had done. We cannot see why the Companies should trouble themselves about such a matter; but we sincerely hope that the Commissioners, if appointed, will have an eye to efficiency before they think of profit—a line of action which has not always been taken by the existing Companies. The deputation said many other things, but failed, we think, to urge a single good reason against the proposed Bill. We do not know whether water is as well represented in the House as beer; but if it is there will apparently be a good deal of opposition to Colonel Beresford's measure. We sincerely hope that when the Bill comes before the House, it will not be left to a few interested persons, and will not be "quashed" by an interested minority. It is a question which affects every member of both Houses who lives in town during the Parliamentary season; and we trust that even those members who have no money-interest at stake, will prove sufficiently public-spirited to master the facts of the question, and take care that it is treated fairly and according to its deserts.

TRADE ADVERTISEMENTS AND THE PROFESSION.

WE wish to utter a word of timely caution to the profession on the wisdom of giving testimonials to tradesmen. Medical men hold a very responsible position towards the public, which is almost superstitious in its reverence for the dictum of a doctor on the utility or worthlessness of apparatus or appliances, or on the wholesomeness or unwholesomeness of articles of diet. Medical evidence in many of these matters has undue weight, and the instances are notorious in which experience has not borne out the assertions made, even by the heads of the profession, concerning apparatus or articles of diet, and in which the doctor has fallen an easy prey to the designs of a tradesman, and has had the mortification of seeing ever afterwards his name tacked to advertisements which really gull the public. As a rule, a medical man should never give a testimonial to a tradesman. *Litera scripta manet* we were taught at school, and a testimonial can never be recalled; and if the man who has flourished and has "waxed fat," as it were, on the strength of the hastily-given professional testimony should by any chance fall away from the paths of honesty, the reputation of those who have backed him, and of the profession to which they belong, must suffer in the eyes of the public; for the public would not be slow to discover either that the medical profession is really no judge, even in those matters in which their education might be expected to guide their judgment, or that individuals, for the sake of keeping their names before the public, have given testimonials with the knowledge that the advertisement of their names would be co-extensive with that of the tradesman's wares. This recklessness in putting pen to paper is calculated to damage the profession individually and collectively, and those who feel impelled to do so should remember that apparatus quickly becomes obsolete, while a testimonial in the hands of unscrupulous persons never does; and that no matter how excellent may be the samples of articles of consumption which have called forth the hasty testimonial, it is unfortunately impossible to insure that goods will be supplied according to sample, and that there is no small danger that a "medical testimonial" may be the means of puffing all manner of edible and potable trash.

EXECUTION OF HEAP.

THE wretched criminal who caused a young woman's death by injuries produced while attempting to procure abortion, has been executed at Liverpool, notwithstanding the recommendation to mercy made by the jury before whom he was tried. There can be little doubt that Heap was a regular professional abortion-monger, and indeed he had suffered a term of penal servitude for procuring abortion on a previous occasion. Under these circumstances we think that the authorities at the Home Office were right in turning a deaf ear to the various appeals made to them on behalf of the convict, and there can be little doubt that his execution will have an effect in deterring others, far greater than any terms of penal servitude, however lengthy.

Before death the criminal confessed his crime, the facts of which were briefly as follows:—

Heap kept a chemist's shop at Manchester and called himself a "surgeon," a title to which we are happy to say he had not the shadow of a claim. He possessed no diploma of any kind, either medical or pharmaceutical, and was as ignorant of chemistry as he was of surgery. His wife was a "midwife," and the fact that the deceased girl, Margaret McKivett, for whose murder Heap suffered, first sought the assistance of Mrs. Heap, and only resorted to Heap on finding his wife was dead, is certainly more than suspicious. Abortion was procured on March 14th, and two days later the poor girl died of peritonitis, and at the post-mortem examination it was discovered that the "sharp instrument like a skewer," which Heap had used, had been thrust through the uterine wall and had wounded the peritoneum.

SUCCESSFUL LAWSUIT OF AN AMERICAN DENTIST.

A CURIOUS action has been tried in the Court of Record, Scarborough. The plaintiff, a dentist practising on the strength of a diploma from the Dental College of Pennsylvania, claimed four guineas for two operations performed at one visit, which were thus described by his counsel, Mr. Sleigh: "There were two distinct operations—one was filling with gold one of her molar teeth; the other was preparing the next tooth to it, so that it might be operated on at a future day." The defendant was a gentleman of Collingham, near Hull, on behalf of his daughter, a girl at school in Hull. A verdict was given for the plaintiff. The defendant had previously offered to pay one guinea, but emphatically declined paying four, which, we think, was rather a smart fee for stopping one tooth, and preparing another. The young lady was detained from ten to about half-past one. The learned counsel explained that the dentist was known by the proprietors of the school to charge at the rate of one guinea per hour for his work. And he further justified his client's charge by alleging the costliness of gold leaf, and the great superiority of American dentistry over that of England, where he said there was no Dental College. Mr. Sleigh does not seem aware of the fact that the English College of Surgeons gives a licence in dental surgery. It is curious to see a successful claim for payment for surgical services on the part of a gentleman not possessed of a British qualification, and, after all we have lately read, to hear the possession of an American diploma lauded as a thing to be proud of. We presume that the verdict for the full amount of the charge was based on the view of a supposed contract between the plaintiff and defendant, which it is to be regretted was not more explicit.

OUTBREAK OF ENTERIC FEVER AT CHORLEY.

WE find that Dr. James M. Rigby, medical officer of health for Chorley, reports the occurrence of an alarming outbreak of enteric fever in that town. The disease at present appears to be limited to the neighbourhood of Bolton-street, Dr. Rigby himself having attended eighteen or nineteen cases in that district. It is stated that the outbreak does not depend on any defect in the drainage of the town, which the medical officer believes to be perfect, but it is attributed to the fact that the sewers of the neighbouring town of Darwen are now undergoing a process of renovation and cleansing, and that, owing to the prevalence of north-easterly winds and dry weather, the dust charged with typhoid poison has been blown in the direction of Chorley. We hope, however, Dr. Rigby will not rest satisfied with this hypothesis. Without wishing to cast any doubt on the statements made as to the satisfactory sanitary condition of Chorley, we think the fact that all the cases reported have occurred in one district of the town only, looks extremely suspicious. Had the disease originated in the manner suggested, the cases would have been pretty uniformly disseminated through the town. The localisation of the outbreak points either to some local defect in the drainage or water-supply, or to the distribution of specifically contaminated milk in the affected district. We urge the sanitary authority to make a full and complete inquiry into these points forthwith, for even if the cause be discovered to be general something has evidently determined the outbreak to one particular locality. For the best means of dealing with the epidemic we refer the sanitary authority to the reports either of our own Sanitary Commissioners or to those of the Government medical inspectors on those towns that have lately experienced similar visitations.

AMALGAMATION OF MEDICAL CHARITIES.

OUR recent statement on the proposed amalgamation of the Victoria and Belgrave Hospitals for Children renders superfluous any further comments upon the desirability of its speedy accomplishment. The difficulty of deciding upon the best site for the proposed South-Western Hospital for Children is all that now delays the settlement of the question of amalgamation. We anticipate an early and final selection of a site, as the refusal of the Metropolitan Board of Works to sanction the construction of the hospital on their land, facing the new embankment at Chelsea, brings the matter within a narrow compass.

The united committees have three courses open to them—namely (1) to accept the site, at the north end of Battersea-bridge, most liberally offered by the Duke of Westminster; (2) to extend the present site of the Victoria Hospital; or (3) to find some fresh site, altogether away from what has hitherto been the scene of their labours.

In considering the first course, the proximity of the site to the new sewage pumping station, the basin of the Grosvenor canal, and the railway must be remembered. A minute inspection of the new pumping station, however, proves that the only nuisance it can possibly occasion will be undue vibration. The site offered by the Duke of Westminster recommends itself strongly as having an area of 2600 square yards, with a south-westerly frontage of 140 feet, and as being most readily accessible from every direction, whilst surrounded by a permanently uncovered expanse upon three sides.

With regard to the second course, it is necessary to observe that the present freehold of the Victoria Hospital (1300 square yards) is but half the size of that we have just discussed; that for its airiness it will have to depend, on one side, upon the twenty feet space which separates it from the infirmary of the Royal Hospital, and on the opposite side upon the new forty-foot street. It is probable that the direction in which the present site could be extended would be towards the Queen's-road. Such an extension would have to be carried as far as that road before proper ventilation and a site equal in area to that at Battersea-bridge would be secured. This would render the site exceedingly valuable, but very costly, to build upon, as it would have upwards of 350 feet of frontage. A further objection may be noticed—namely, that the latrines and dry dustbin of the Royal Hospital's infirmary abut on the site, but, owing to their excellent order, perhaps this is not a serious drawback.

We refrain from referring to the third course, further than to state that we believe it to be undesirable, as thereby a large and thickly-populated neighbourhood would be deprived of the great benefit of a most necessary form of charity.

As far as we are able to judge, the site offered by the Duke of Westminster is the best one at the disposal of the authorities.

VIVISECTION AT FLORENCE.

THE statements that have been promulgated in connexion with Professor Schiff, of Florence, and his alleged practices, appear to us to demand some contradiction at his hands, if they are unfounded; failing which, they should be made the subject of an impartial and official inquiry. It scarcely seems credible that such an enormous number of dogs can have been made the subjects of experimentation, and it certainly is very discreditable, if true. We hold that if such experiments were only undertaken under a grave sense of responsibility, and with a definite object in view, their number would be very limited; and we cannot believe in the existence of much sense of responsibility or humanity in anyone who could justify to himself the sacrifice of thousands of unfortunate dogs in his laboratory. If the legitimate pursuit of science demands such a sacrifice of life and infliction of pain in one laboratory—which we do not in the least believe,—all we can say is, that the sooner an attempt is made to define the line of demarcation between what is legitimate and what is not, the better. We hope, however, no less on the score of humanity than out of respect to Prof. Schiff and medical science, that he is in a position to give, and that he will give, a contradiction to the statements put forward, and of which he must be aware.

DEATH FROM AN OVERDOSE OF CONIUM.

WE are in possession of part of the facts connected with the death of Dr. Walker, which took place on the 13th ult., in New York, and which, according to the verdict of the coroner's jury, resulted from an overdose of conium. Although we are not yet in possession of the full facts, we think it right to lay those which we have before our readers, since heroic doses of this potent drug are just now in vogue. The jury found that the deceased "Died from the medical use of the fluid extract of conium"; first, of the extract of the leaves, 180 drops, administered in four doses of 40, 40, 40, and 60 drops, without any apparent effect; and, secondly, after an interval of four hours, of about 150 minims of the fluid extract of the seed (prepared by a different firm), given in three doses of 50 minims each, at intervals of about half an hour, and that the deceased suddenly died in about one hour and a half after taking the last dose.

The deceased suffered from a muscular tic of the face, for the relief of which the drug was given. The post-mortem showed that the organs were all healthy except a slight atheromatous change in some of the arteries. The

valves of the heart were quite healthy. It appears that full directions were given to Dr. Walker to stop taking the drug as soon as certain symptoms (dizziness, &c.) were felt by him; but notwithstanding that he felt dizzy after the first dose, he took three more (since no mitigation of the spasm occurred), and died in consequence with the symptoms of syncope.

The "fluid extract of the seeds," which proved fatal in the case, has no place in the British Pharmacopœia. The preparation which most resembles it is presumably the "tinctura conii fructus." The "succus conii," of which Dr. John Harley has given as much as an ounce for a dose, is probably equivalent to the "fluid extract of the leaves," of which 180 drops had no effect on Dr. Walker. It seems highly probable that the preparation which proved fatal, and which had been prepared by an eminent pharmaceutist, Dr. Squibb, was of very superior quality to that which had no effect.

POISONING BY NITRATE OF SILVER.

A CASE is reported in the *Brighton Guardian* in which a man hastily took a piece of lunar caustic, thinking it to be an antibilious pill. Soon after he felt a burning in the throat, and was taken to a chemist's shop; then to two medical men, who both were said to be too ill to see him. Finally he saw Mr. Eugene J. Hart. The patient said he felt the caustic in the right side of the throat, but Mr. Hart searched for it with his finger, and could feel nothing. Two or three hours after Mr. Hart was sent for, and found great difficulty of breathing, for which he performed an operation, and carried on artificial respiration. But the man died. At the post-mortem the stomach was found congested. "On examining the throat, at the back of the tongue, he found a large black patch in the fold of the mucous membrane, where the poison had lodged. The passage into the lungs was completely blocked up, and the throat much swollen. Deceased died from suffocation." Few deaths from this substance are reported, it not proving very fatal when taken into the stomach, especially if common salt is given, as it was in this instance. A similar case to the above, in which croup was caused by a bit of caustic dropping into the windpipe, is recorded by Dr. Albers, of Bremen, and mentioned by Christison.

THE DISCUSSION ON PUERPERAL FEVER AT THE OBSTETRICAL SOCIETY.

THE discussion on this important subject will be resumed at the meeting of the Society on Wednesday next, May 5th, at eight o'clock precisely, when Dr. Barnes will reopen the debate. We understand that among other visitors Professors Stoltz of Nancy, and Howitz of Copenhagen, are expected to be present. It is also hoped that Dr. Arthur Farre, who is an Honorary Fellow of the Society, will attend and take part in the discussion. We are sure that any contribution on this important subject from Dr. Farre will be most valuable, and will be accepted by the profession with the respect his high position and distinguished reputation alike command.

ENTERIC FEVER IN SUBURBAN LONDON.

THE Registrar-General in his last Weekly Return again calls attention to the greater fatality of fever in the outer ring than in London itself. In the week ending the 24th of April 13 deaths from fever were recorded around London, of which 5 occurred in Croydon, and 2 each in Willesden, Tottenham, and West Ham sub-districts. These 13 deaths were equal to an annual rate of 8·9 per 1000 persons living within the metropolitan police district outside registration London. Within London the 23 deaths referred to fever during the week were 19 below the average weekly number in the corresponding week of the last ten years, and were equal to an annual rate not exceeding 3·5 per 10,000.

THE HOUSE OF COMMONS AND HALF QUALIFICATIONS.

THIS evening (Friday) Mr. Waddy, Q.C., will ask the Vice-president of the Committee of Council on Education, if the Government has any information from the Medical Council of the success of attempts on the part of the medical examining bodies in the three divisions of the kingdom to form conjoint boards for giving diplomas that shall constitute a complete qualification in all branches of the medical art; and if the Government, in the event of its not receiving or of not having yet received satisfactory information, is likely to bring in a Bill, or otherwise initiate legislation, with a view to remedy the present system of half qualifications by nineteen competing bodies.

THE ARCTIC EXPEDITION.

WE are enabled to state that Sir Alexander Armstrong, K.C.B., Medical Director-General of the Navy, is actively engaged in preparing a special set of directions for the guidance of the medical staff appointed to the Arctic expedition. The experiences gleaned by the Director-General some years ago in the Arctic regions may lead us to anticipate that the forthcoming instructions will be specially valuable and workable; and we shall await the publication thereof with considerable interest, inasmuch as the success of the expedition will most materially depend upon the scales of diet adopted and the general hygienic arrangements.

DR. SEDGWICK SAUNDERS has presented to the Commissioners of Sewers a report upon the Sale of Food and Drugs Amended Bill. He is of opinion that the Bill has been drawn out more in favour of the trader than of the public, and points out the defects of numerous clauses to support his belief. It is claimed that a clause should be added to the Bill giving to sanitary inspectors the right of entry and search into all bonded warehouses, with power to destroy anything unfit for human food. Dr. Saunders, in concluding his report, expresses his regret that the Government has not fixed certain standards of purity below which no article of food, drink, or drugs should be sold, on pain of conviction before a magistrate.

DR. FUSSELL, medical officer of health for the Eastern Division of the County of Sussex, reports that of eighty towns and villages visited by him during the past year, nearly all were found to be inefficiently drained. Diphtheria had been prevalent in many localities, but the disease was not of a fatal type. Forty-eight cases of enteric fever had come under his personal observation, a very large number of which had been imported into the district, and he cites instances in which the fever proved both contagious and infectious. Dr. Fussell's report is a comprehensive one, and its value will no doubt be fully appreciated by the sanitary authority under whose supervision he acts.

MR. ANDERSON, of Queen's College, Birmingham, has forwarded to Mr. Sclater-Booth a series of suggestions for simplifying legal proceedings taken under the Adulteration Act. *Inter alia*, he recommends that a chemist of undeniable reputation—such as Dr. Frankland or Dr. Williamson—should be employed by the Board of Trade as a referee in all cases where the official analysis is disputed. Recent events would seem to demonstrate the necessity for the early appointment of such an authority, whose decision shall be final.

DR. LUTON, of Rheims, has lately published an interesting article on the use of the cyanides in rheumatism. With the cyanide of zinc, a tasteless and odourless white powder, given in minimum doses of three-quarters of a grain, very good results were obtained. The cyanide of potassium in doses of about a grain, in the form of a mixture, proved highly serviceable. Although Dr. Luton gives preference to the latter salt, its disagreeable taste and rapidity of decomposition in solution militate against its chance of becoming a favourite therapeutic agent. Next to the cyanides Dr. Luton seems to rely on colchicum, but he insists on its administration in larger doses than are ordinarily given in this country. He disparages propylamine and trimethylamine, of which we have heard a great deal lately in the treatment of rheumatism.

THE sanitary condition of Cheshunt would seem, from the published results of an investigation lately made in the district by Dr. Thorne Thorne, of the Local Government Board, to be deplorable. The means for the disposal of sewage and filth are very primitive and inefficient, while many of the wells are so situated that they cannot but be contaminated at all seasons of the year. The same stream frequently serves the double purpose of a sewer and of a water-supply. We are not astonished to learn that fever of a malignant type has come under the notice of the local medical men.

DURING the year 1874, fifty-seven vessels arrived at the port of New York subject to quarantine detention. Eight of these vessels had small-pox on board, while 121 cases of yellow fever occurred on forty-four vessels. No cases of cholera were reported, although several vessels arrived from ports infected with the disease. Yellow fever raged malignantly in ports having intimate and extensive connexions with New York, and had it not been for the stringent sanitary precautions taken by masters of vessels, a serious amount of fever would in all probability have been conveyed to New York.

SURGEON-GENERAL THOMAS LONGMORE, C.B., F.R.C.S., honorary surgeon to her Majesty the Queen, Professor of Military Surgery in the Army Medical School, Netley, has consented to take the chair at the annual festival of the Fellows of the Royal College of Surgeons in July next. It has long been felt that the navy and army should be represented, and perhaps it would be difficult to select from either service a more excellent representative in every respect than Professor Longmore.

ON Thursday, April 22nd, the session 1874–75 of the St. Andrews University was brought to a close by the annual ceremony of capping the graduates. The ceremony took place in the Library Hall, in presence of a large and fashionable audience. Principal Shairp, of the United College, presided, and was supported by the various members of the Senatus, several of the examiners for degrees, and two representatives from the Medical Council.

WE understand that Dr. Alfred Wiltshire has been appointed Joint Lecturer on Midwifery at St. Mary's Hospital, and will during the ensuing summer session deliver the course of lectures on Midwifery, in conjunction with Dr. Alfred Meadows.

THE Royal College of Surgeons of Edinburgh has petitioned the House of Commons against the Bill for Registering Foreign Degrees in Medicine when held by women. Their objections to this absurd measure are in the same line as our own.

WE have to record the death of Mr. F. Giles, of Stourbridge, from fever contracted while attending a patient suffering from that disease; and also the serious illness of Dr. Wade, physician to the General Hospital, Birmingham, from the same cause. The risk run by medical men from contagious diseases is evidently as great as ever, and the martyrs of science are still to be found among the most zealous and able members of the medical profession.

A QUESTION by Dr. Lush in the House of Commons last week elicited the reply that Her Majesty's Government considered that the medical officers engaged in the late Ashantee war had received their due proportion of honours and rewards. Dr. Lush did not appear satisfied with the answer, and gave notice that at an early date he would again call attention to the subject.

WE have much pleasure in stating that Mr. D. B. Balding, F.R.C.S., Royston, Herts, has been elected without opposition to the office of coroner for the Eastern division of Hertfordshire. It must be a source of gratification to the advocates of medical coronerships to see one more member of the profession called upon to discharge the duties of an ancient and honourable office.

THE *New York Medical Journal* some time ago reported several cases showing the value of quinine in accelerating parturition. The drug was given in doses of seven or eight grains, and in a very short time produced strong expulsive efforts. It did not appear that the mothers were subject to any evil after-effects, while the tendency to prostration was counteracted.

WE regret to announce the death of Dr. Robert Law, professor of the Institutes of Medicine and Clinical Medicine, School of Physic, Dublin, and consulting physician to Adelaide Hospital. Dr. Law was formerly president of the Dublin Pathological Society, and physician to Sir Patrick Dun's Hospital. Dr. Law in his lifetime contributed several valuable papers to medical literature.

DR. BELL PETTIGREW, F.R.S., Lecturer on Physiology at Surgeons' Hall, Edinburgh, has been awarded the Godard Prize of the French Academy of Sciences for his original anatomical and physiological memoirs. Dr. Pettigrew, in virtue of the above distinction, becomes a Laureate of the Institute of France.

SMALL-POX is reported to be committing great ravages among the Tartar population of the Crimea. As these people are all Mussulmans, their opposition to "Christian" vaccination is so great that the parents suck the lymph out of the wound immediately after the operation is performed.

THE President of St. Thomas's Hospital has founded a scholarship of the annual value of 40 guineas, to be awarded biennially in the medical school of the hospital to the second year's student placed highest at the examinations of the winter session.

DR. VINCENT AMBLER, 1st Surrey Artillery Volunteers, has been decorated by the Shah of Persia with the order of the Lion and the Sun. Dr. Ambler served with the English Army in the Crimean War, and received the Medjidie and other medals.

THE annual oration of the Medical Society will be delivered on Monday next by Dr. George Buchanan, who will choose for his subject some points of importance relating to modern hospitals.

REPORT
OF
The Lancet Sanitary Commission
ON THE
DWELLINGS OF THE WORKING CLASSES.

No. IV.

THE DWELLINGS OF THE IMPROVED INDUSTRIAL DWELLINGS COMPANY.

IN previous Reports we have endeavoured to give our readers some idea of the miserable conditions under which the poor manage to exist; and we have also given a sketch of one of the Peabody Buildings, in which excellent dwellings are provided on a semi-charitable basis. In the present Report we shall show what can be done on a purely mercantile basis, and how a safe return of 5 per cent. can be obtained, at the same time that the capital is employed on a really praiseworthy and philanthropic work.

The Improved Industrial Dwellings Company, whose chairman is Sir Sydney Waterlow, was established in 1863. Since its commencement it has paid 5 per cent. on its capital, which amounts to a quarter of a million of money. This capital has been employed in erecting dwellings for the working classes in all parts of London. There are 15 blocks of buildings now in occupation, which comprise 1452 tenements. Six more blocks of building are in course of erection, and when these are finished this Company will have performed the by no means inconsiderable work of providing house-accommodation for 2194 families of the working classes. Last year the Company offered premiums of £250 and £150 for the two best designs for buildings. There were twenty competitors, and many of the designs showed considerable ingenuity and were of a high order of merit; "but the directors, after carefully considering the whole subject, arrived at the conclusion that none of the designs could be carried out at the cost to which, having regard to the means of the working classes, the directors have hitherto felt themselves restricted." The buildings of this Company, then, may be taken as representing the class of building which is most likely to return a dividend at the least expense to the occupiers.

In George-street, Grosvenor-square, within a stone's throw of Oxford-street, on land which is probably valued by the square yard, are situated Clarendon-buildings, valued in the Company's balance-sheet at £5814 15*s*, 6*d*. Clarendon-buildings contain thirty-eight tenements, so that the cost of each tenement is a fraction over £153. The tenements are of five, four, and three rooms each, and the weekly rental ranges from 12*s*. to 7*s*. According to our calculation, the total rental of this block is about £900 a year, so that, after making deductions for ground rent, repairs, and incidental expenses, it is evident that this must be reckoned amongst the most profitable property which the Company possesses. Knowing the cost of Clarendon-buildings it must strike the observer as a wonderfully good structure for the money. It is solidly built of red brick, and is not without architectural pretension. It consists of a basement with six storeys above it at either end, but only five in the middle; in other words, the main building is six storeys high, and on the roof of this a seventh storey is built at either end, which gives it a turreted appearance, and enhances the architectural effect. Each storey consists of six tenements—a tenement of five rooms at either end, two three-roomed tenements in the middle, and between the three and five-roomed tenement one of four rooms. Each tenement runs completely through the building, so that the occupier can always obtain a through ventilation. In the front of the building is a space like the area of an ordinary house, and at the rear is a larger area, below the level of the street, which might be called a court-yard, and is used as a drying ground. On the roof, which is covered with concrete, and securely railed in, are two five-roomed tenements, two washhouses with water cisterns above them, and sundry stacks of chimneys which serve to support the clothes-lines. The materials used for building are bricks, cast-iron for girders and railings, and concrete for the paving of the court-yards, passages, and staircases. We first examined a tenement of five rooms, the rental of which was 11*s*. 6*d*. a week. A neat front door, grained, numbered, and provided with a knocker, admitted us to a small ante-room, which contained a cupboard, in which were stored various domestic necessaries. The ante-room opened into the sitting-room, a cheerful apartment about 12 or 13 feet square, with a large bay window. Beyond this were three bedrooms, two tolerably large with fireplaces, and one smaller and without a fireplace. The most important feature, perhaps, was the kitchen, provided with a small kitchen range, having a boiler and oven, a copper, a constant water-supply (from the cistern on the roof), a sink, and a coal bunker capable of holding half a ton of coals. In this apartment was the watercloset, the waste-pipe of the sink passing into the pan of the closet, so that the one was flushed by the slops thrown into the other. This is not a satisfactory plan, although perhaps better than allowing the closets to be supplied direct from the water-cisterns. In spite of the trapping of the sink-pipes the smell comes back, and on a Sunday, we were informed, when hot boiled cabbage is eaten by nearly all the inhabitants of the building, the smell of cabbage-water forces its way through every waste-pipe into every tenement. "I thought," said one of the occupiers, "that it was my own cabbage-water that smelt, and gave up my Sunday vegetables; but I soon found out that whether I ate cabbage myself or not I was forced to endure the smell of my neighbours'." We should have thought it would have been feasible, without any great extra expense, to provide a separate cistern for the watercloseets, and so obviate this inconvenience, which, from a hygienic point of view, is certainly one to be avoided. In every kitchen there is an opening into the ash-shoot, which runs through the building to the dustbins in the basement. These ash-shoots are of course receptacles for rubbish of all kinds, and, the British housewife being a distinctly fallible being, things are "shoved" down here which ought to be burnt behind the fire. The leaves of vegetables, bones, refuse of all kinds, and even the entrails of a rabbit, with other like putrescible substances, occasionally find their way into the shoot, and of course give rise, in hot weather, to odours more or less objectionable; but one occupier, who was a careful, sensible person, and knew the advantage of a little disinfectant thrown occasionally into the watercloset, told us that she "kept the smell back" by covering the lid of the ash-shoot with a piece of wet flannel. We certainly think it would be better to have the ash-shoots outside the tenements, on the landings and galleries.

The rooms are papered, and nothing will make a cheap wall-paper look nice. It surely would be better and healthier to have the rooms simply lime-washed or coloured, as are the rooms in the Peabody buildings. There is almost an entire absence of artificial ventilation in the rooms, and we noticed that what few ventilators there were were for the most part covered up with paper or rags. The inhabitants may either do their washing in their own rooms, or carry it upstairs to the washhouses on the roof; and, with the exception of the dwellers on the upper storeys, they seem to prefer the former method. We do not wonder at this, for the stairs are steep and narrow, and the labour of carrying clothes-baskets up and down cannot be light. The tenements on the upper storeys are the best provided with light and air, and are by far the most cheerful. The little houses on the roof, ornamented with rustic porches and flower-pots, looked like charming summer residences, but the labour of climbing to them was decidedly heavy. We should almost have thought that a "lift" would have paid its expenses, for carrying inhabitants, clothes to the laundry, and furniture and goods to the dwellings. The staircases very soon get to look shabby from the damage done in transporting furniture, &c. We went also to see a three-roomed tenement in the basement, the rental of which was 7*s*. a week, and was the only tenement not let. We do not wonder at this, for a more dark and gloomy residence, or a worse approach to it, could scarcely be imagined. It certainly was dear at 7*s*. This basement storey was the

least attractive feature in the building, and it did not appear to be remarkably well planned for the admission of light or air.

We also visited Ebury-buildings, in Ebury-square, Pimlico, which have been erected by the Society. The same general arrangement was observable, and we need not detain our readers by a repetition of the details. The rooms are somewhat larger and lighter, which is due to their situation in a nice open spot, and the rent charged is somewhat less, as might be expected, the value of house property being less in Pimlico than in Grosvenor-square. There is no basement storey, and the buildings enclose a quadrangular space. There is no difficulty experienced in letting the tenements at the rents charged, and the occupiers consist of well-to-do artisans, butlers, cooks, valets, &c. The characters of all applicants for rooms are carefully inquired into, and ill-conducted tenants, or such as do not pay their rent regularly, are quickly got rid of at a week's notice.

The moral effect of these dwellings is scarcely second to their effect on the physical well-being of the inhabitants. We have freely criticised these buildings wherever we have thought criticism admissible, but we need hardly say how immeasurably superior they are to the ordinary dwellings which artisans are compelled to inhabit; nor need we say how highly we appreciate the good work which is being done by this Company, and how heartily we congratulate it upon its well-deserved prosperity.

ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the College, held on Thursday, the 29th ult., upon the recommendation of the Council, the Baly Medal was awarded unanimously to Claude Bernard, the distinguished physiologist. The medal, in the ordinary course of events, is presented upon the day of the delivery of the Harveian Oration, and it is hoped, if Claude Bernard should accept the proffered honour, that he will receive it in person, should his engagements permit of his coming to England for the purpose; and in that case probably the Fellows might determine to invite him to a public dinner.

The College also decided that it is desirable to place three statues in the niches under the portico of the College front, and to issue a circular requesting subscriptions from the Fellows for a small sum additional to that in hand, to cover the cost of the embellishment. The three distinguished men selected by the College for representation in the niches are Linacre, the founder, in the centre; Harvey to Linacre's right; and Sydenham to the left hand.

The President made an explanation in reference to the statement which recently appeared "in one of the medical journals," to the effect that he had recently expressed to the President of the College of Surgeons his unwillingness to lay before the Fellows of the College of Physicians a proposition emanating from the College of Surgeons in reference to the Conjoint Scheme. He stated that he had been in private communication with the President of the College of Surgeons, and his individual opinion was asked as to his willingness to reopen negotiations in reference to a particular scheme which the College had sanctioned in detail, and for which it had passed special bye-laws, in order to give effect to its provisions. Being under the impression that the point the College of Surgeons desired to reopen had closed, he intimated his opinion that this was undesirable, but if a request of the kind came before him, he was willing to do so. The letter he wrote was not a public, but a *private* one, and an imperfect version of it had been published. He did not in the least degree take upon himself to act for the Fellows, but merely indicated his own private opinion.

The President's remarks met with general applause.

THE TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—I trust you will do me the favour of inserting in your next issue this letter, which I make as short as possible.

Until this week, I have been unable to examine the reports of Surgeon-Major Scott and Surgeon Ruxton on cases of cholera treated by them in Lucknow, in November, 1873. The Director-General has been kind enough to allow me to see these reports of cases, twelve in number.

I find that in every case, except one, brandy was given, generally when the patient was first taken to hospital, in the stage of collapse, or when it was impending. In most of the cases, opium was also given; and in some quinine, ammonia, &c. were also administered.

I also observe that three grains of chloral hydrate in thirty minims of water (one in ten) were only injected at *one time*, and repeated.

As the plan of treatment I advocate is that *nothing but cold water* should be given to the patient internally, in collapse; that brandy and opium, and other stimulants are *above all things* to be excluded; and that *ten* grains of chloral in one hundred minims of water should be injected in four or five different places *at once* when collapse sets in, and repeated if necessary in an hour or less, I think most people will agree with me that in the above patients that plan was not carried out.

As cholera is reported by telegram to have just broken out in Oudh, I sincerely hope that medical officers in India will give the chloral hydrate treatment *alone* a fair trial, in the quantity and proportion above stated. I shall be quite content to abide by the returns of the administration of this *sedative*, although others, such as hydrocyanic acid, atropine, &c., may, according to my idea, be advantageously employed.

I am, &c.,

Woolwich, 22nd April, 1875. A. R. HALL, Surgeon, A.M.D.

ROTHERHAM HOSPITAL.

To the Editor of THE LANCET.

SIR,—To prevent the possibility of a charge being made that I have misstated the number of beds which the Rotherham Hospital will contain, I beg you will allow me to explain that the large ward was originally intended to hold only 10 instead of 12, and the small one 6 instead of 8; but we soon found there was quite space enough for the larger number, and the patients expressed themselves more comfortable and warmer for the increase.

Yours faithfully,

E. J. SHEARMAN, M.D., F.R.S.E., &c.

Rotherham, 26th April, 1875.

BIRMINGHAM.

(*From our own Correspondent.*)

FOR many months the health of this town has not been so good as it is at the present time. The death-rate last week was 25 per 1000. Small-pox still exists; but there are now only 41 cases in the Special Hospital. Four deaths occurred last week from that disease.

The recently-erected public fever wards were opened last Monday, and two nurses were appointed to receive the first instalment of patients.

The Sanitary Committee of the Town Council have endeavoured to make the new wards as complete as possible, and it is to be hoped that the general public, for whose benefit they are provided, will not hesitate to send cases of contagious disease to them, rather than allow them to remain in their own homes, as foci for the dissemination of such diseases.

The Fever Hospital contains two wards, each with 20 beds, with suitable bath-room, lavatory, and earth-closet for each. A special room is urgently wanted for convalescent fever patients; already one has been erected for the accommodation of the convalescent small-pox patients, capable of containing 24 beds, and the other apartment being equally requisite for those who are recovering from fever, scarlatina, &c., ought to be at once provided.

The rapid development of some of the suburbs of Birmingham, especially those included in the Solihull rural district, has rendered interference by the Local Sanitary Authority necessary, and a proposition is on foot to borrow £45,000 to sewer the district.

That something requires to be done in this direction is shown by the report of Dr. George Wilson, the Medical Officer of Health for Warwickshire. Large, deep, open ashpits are common, and many of the wells are polluted by leakage from these ashpits, so that "in wet weather they are little better than open cesspools." The only drainage at Acock's Green, a place containing 300 houses and 1600 inhabitants, is at present into the Birmingham and Warwick Canal. A public inquiry

has recently been instituted by the Local Government Board as to the best means of remedying these sanitary defects, and Mr. Pritchard, C.E., has prepared plans for the drainage of the whole district, which seem well adapted for the removal of all difficulties.

Mr. West, on April 4th, performed lateral lithotomy at the Queen's Hospital, on a man aged twenty-three, and removed a mulberry calculus weighing six drachms, which had been forming for more than twenty years. The patient has done well.

The Midland Medical Society has been well attended this session, and many specimens of interest have been brought forward and papers of interest read. On the 24th March, Dr. Bodington read a paper on "Hallucinations, Illusions, and Delusions in Insanity." On April 7th Mr. West brought forward some cases of removal of the greater part of the lower jaw for caries without external incision, and advocated that mode of operation, and Dr. Warner read a paper "On the Value of Subjective Symptoms in the Treatment of Disease;" and on the 21st instant Mr. Furneaux Jordan discussed the varieties of hydrocele and their treatment. At the Children's Hospital, resections of the elbow and hip joints have recently been performed in children, aged respectively eight and six years, by Mr. Thomas and Mr. George Elkington for ostitis and caries, and with a good result in each case.

The sub-committee appointed to prepare bye-laws and a scheme for the government of the Birmingham Medical Institute, have to report to the members the result of their deliberations during the ensuing week. Steps are being taken to ensure pecuniary assistance from the general public for the medical library, and an influential committee of gentlemen connected with the various charities of the town are about to solicit contributions for that purpose. Owing to the homœopathic difficulty, the medical profession are not giving the Institute that support which they otherwise would have given.

Birmingham, April 27, 1875.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on April 22nd:—

Beaumont, William Mardon, L.S.A., Oxford.
Bond, George Weddall, L.S.A., Pulham.
Bell, John Duncan, L.S.A., Antigua, West Indies.
Cadge, William Hotson, Castle Carlton, Norfolk.
Edwards, David, Mold, Flintshire.
Greenwood, Charles, Nether Broughton.
Hartley, John Fleming, Thorpe Salvin, Yorks.
Johnson, Edward Thornton, South Norwood.
Lockwood, John Parker, New Hampton.
Smith, William Romaine, Oxford.

Of the 62 candidates examined during last week, 14 failed to satisfy the Court of Examiners, and were referred for six months' further professional study.

The following gentlemen passed the primary examination in Anatomy and Physiology on April 27th:—

J. T. Cash, A. G. Thomas, E. Aylward, J. M. Chapman, V. Wanostrecht, and Walter S. Kay, Edinburgh; W. S. Porter, A. K. Scattergood, and J. H. Thorp, Leeds; A. E. Fitzpatrick, W. B. Hadden, and D. Harrison, Liverpool; E. R. H. Pollard, Dublin; E. S. Norris, Cambridge; W. R. Williams, G. Stock, F. Taylor, T. C. Norton, and A. H. Boissier, Bristol; H. F. Bailey and R. S. Miller, University College; W. B. Smith and R. Hunt, Manchester; J. H. Barnard and A. J. J. Johnston, Guy's Hospital; W. H. Rean, London Hospital; A. Benthall, King's College.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on April 22nd:—

Barrow, John, Hilldrop-crescent, Camden-town.
Chadwick, George Richard, King's Lynn, Norfolk.
Lush, John Selfe, West Lavington, Wilts.
Makins, G. Henry, Dassenfield, Walton-on-Thames.
Musgrave, Reginald Vernon, Finchley-road.
Strickland, Arthur Wm., St. George's, Wellington.
Thomson, George William, Hemel Hempstead.

The following gentlemen passed the Primary Professional Examination on the same day:—

Herbert Collier, St. George's Hospital; Joseph Watson Ellis, Frederick Freer Leslie Robertson, Harry Young Thompson, and Alfred Glover Williams, St. Bartholomew's Hospital; Henry Dawson Farnell and James Heelas, University College; Clarence Rich. Gillard, St. Thomas's Hospital; John Joseph Wright Grimwood, Guy's Hospital; Mirza-Hussein-Khan, St. Mary's Hospital.

At the preliminary examination in Arts held at the Hall on April 23rd and 24th, 62 candidates presented themselves, of whom 24 were rejected, and the following 38 passed and received certificates of proficiency in General Education:—

FIRST CLASS (in order of merit).—1. A. B. Lee. 2. J. P. Hardman, W. C. E. Taylor, and G. E. Wainwright. 5. H. S. Frakes. 6. C. B. Richardson and G. B. Wall. 8. J. R. Day, F. C. Fisher, and S. H. Lindeman. 11. C. F. Cuthbert and J. Whiting.

SECOND CLASS (in alphabetical order).—J. W. Aird, Isabella Bartholomew, H. A. Benham, A. Beverley, R. Brookes, J. F. Burnes, G. H. Dodson, A. W. M. Drew, R. E. Durell, R. H. Fuller, F. J. Grindon, St. V. L. A. Hammick, E. A. Harbord, B. A. Y. Jolliffe, G. L. L. Lawson, C. A. McAnally, A. K. Morgan, J. N. Pegose, John Rees, T. S. Rogers, J. J. Rolands, A. Smith, C. A. Smith, E. A. Swithinbank, F. H. Villanueva, H. Wakefield.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examination, obtained the degree of Doctor of Medicine on April 22nd:—

Bird, William, M.R.C.S., L.S.A., York.
Devereux, Daniel, M.R.C.S., L.S.A., Tewkesbury.
Eyton-Jones, Thomas, Wrexham.
Kesteven, Wm. Bedford, F.R.C.S., L.S.A., London.
M'Vail, John Christie, M.B., C.M., Kilmarnock.
Ryott, Frederic Elliot, F.R.C.S., L.S.A., Newbury, Berks.
Sedgwick, Jas., M.R.C.S., Boroughbridge, Yorks.
Sweeting, Thomas, M.R.C.S., L.S.A., Basingstoke.
Wolston, Christopher, M.R.C.S., Bournemouth.

JAMES E. PEIRCE, M.R.C.S. Eng., has been placed on the Commission of the Peace for Brecknockshire.

BEQUESTS, &c., TO MEDICAL CHARITIES. — The York County Hospital has received £500 under the will of Mr. John Roper. The Northampton General Infirmary has received £200 under the will of Mr. Everard Bouverie. The British Medical Benevolent Fund has received a donation of 100 guineas from Erasmus Wilson, F.R.S., to be appropriated to the special fund for augmentation of annuities.

PRESENTATIONS.—A public presentation to Mr. T. Whalley lately took place in the Mirfield Town Hall. The presents consisted of a splendid timepiece, silver tea service, and a beautiful illuminated address. The timepiece bore the following inscription:—"Presented by the inhabitants of the parish of Mirfield and its vicinity, in the county of York, to Thompson Whalley, Esq., M.D., as a token of their esteem, in appreciation of his conduct as a gentleman, and his kindness and ability as a medical practitioner. Town Hall, Mirfield, April 10th, 1875."—On the 6th ult. a meeting was held at Wycombe, Bucks, the occasion being the presentation of a testimonial to Rowland M. Bowstead, M.D., who is leaving Wycombe, after having practised for over twenty years as a medical man, and who, in addition to his other public duties, has occupied with much ability the post of medical officer to the union-house at Saunderton. The Board of Guardians, on Dr. Bowstead resigning his offices in connexion with the union, unanimously voted him a very handsome testimonial, which was splendidly illuminated on vellum. About fifty gentlemen sat down to dinner, and the chairman, in appropriate terms, presented Dr. Bowstead with a beautiful set of opal and gold shirt studs, with the doctor's name engraved thereon, and a purse of 50 sovereigns.

Medical Appointments.

ABBOTT, G., L.R.C.P.I., M.R.C.S.E., has been appointed Assistant-Surgeon to the Central London Ophthalmic Hospital, vice C. N. Macnamara, resigned.

BURGESS, E. A., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Week St. Mary District of the Stratton Union, and Medical Officer of Health for the Week St. Mary Sub-district of the Stratton Rural Sanitary District.

CAMPBELL, R. L., M.D., L.R.C.P.L., F.R.C.S.E., has been appointed Medical Officer of Health for the Stourbridge Urban Sanitary District: £30 per annum; acreage 500; population 9376.

CORLEY, A. H., M.D., F.R.C.S.I., has been appointed a Surgeon to the Richmond Hospital, Dublin, vice Hamilton.

CORY, R., M.B., B.A., has been appointed Assistant Obstetric Physician to St. Thomas's Hospital, vice Gervis, appointed Obstetric Physician.

KEETLEY, C. B. B., M.R.C.S.E., L.R.C.P., has been appointed House-Surgeon to the Queen's Hospital, Birmingham, vice Potts, appointed Resident House-Surgeon to the Southport Infirmary.

LATIMER, H. A., M.R.C.S.E., has been appointed a Medical Officer for Out-patients of the Swansea Hospital, vice Thomas, resigned, on being appointed a Surgeon.

LEE, P., M.R.C.S., has been appointed a Surgeon-Superintendent H.M.'s Government New Zealand Emigration.

LLOYD, K. M., M.R.C.S.E., has been appointed Medical Officer of Health for the Holywell Urban Sanitary District, vice Davies, deceased.

LYON, E. N., L.A.H.D., has been appointed Resident Medical Officer at the Coleraine-street Dispensary of the North City Dispensary District, Dublin.

MICKLEY, G., M.B., C.M., has been appointed Resident Medical Superintendent of St. Luke's Hospital for Lunatics, vice Eager, resigned, on becoming proprietor of Northwoods Asylum, near Bristol.

MULES, P. H., M.D., M.R.C.S., has been appointed Surgeon to the Royal Manchester Eye Hospital.

PERCIVAL, G. H., M.B., M.R.C.S.E., has been appointed Medical Officer to Bradbury and Co.'s Colliery, Bradley-green, Staffordshire, vice Swain, deceased.

PITT, I., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Chilvers Coton District of the Nuneaton Union.

PURRY, C., L.R.C.P.L., M.R.C.S.E., L.M., has been appointed a Surgeon to the Northern Hospital, Liverpool.

SERREITT, E. M., B.A., B.S., M.D., L.R.C.P.L., has been appointed Physician to the Bristol General Hospital, vice T. E. Clark, M.D., resigned.

THOMAS, J. W., F.C.S., has been appointed Public Analyst for Pontypridd.

WALKER, J. D., L.R.C.P.Ed., L.R.C.S.Ed., L.M., has been appointed Medical Officer of Health for the Fylde Rural Sanitary District, vice Bird, whose appointment has expired: £80 for one year; acreage 49,635; population 12,265.

WATSON-PAUL, E., L.K.Q.C.P.I., M.R.C.S.E., L.M., has been appointed Medical Officer and Public Vaccinator for the Calne Union and Workhouse, and Medical Officer of Health and Analyst for the Rural and Urban Sanitary Districts, Calne: £250 per annum, and fees for vaccination, &c.

WHITWORTH, E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the St. Agnes District of the Truro Union, vice H. Whitworth, M.D., whose appointment has expired.

Births, Marriages, and Deaths.

BIRTHS.

COOKE.—On the 19th ult., at Woburn-place, the wife of Thomas Cooke, F.R.C.S.E., of a son.

DAVIDSON.—On the 24th ult., at Union-street, Aberdeen, the wife of Alex. Dyce Davidson, M.D., of a son.

EDWARDS.—On the 22nd ult., at Mount's-bay House, Wandsworth-road, Clapham, S.W. (formerly of New-cross, S.E.), the wife of Alfred Edwards, Surgeon, &c., of a son.

LOMAS.—On the 23rd ult., at Gower-street, the wife of Wm. Lomas, M.D., of a daughter.

MACDONALD.—On the 21st ult., at Woolston, the wife of J. D. Macdonald, M.D., Deputy Inspector-General of Hospitals and Fleets, of a son.

NICHOLSON.—On the 24th ult., at Fenwick-terrace, Newcastle-on-Tyne, the wife of H. A. Nicholson, M.D., of a son.

WHITMARSH.—On the 24th ult., at Clapton-square, Lower Clapton, the wife of Dr. Lloyd Whitmarsh, of a daughter.

MARRIAGES.

HARDIE—WOOD.—On the 20th ult., at St. James's, Leith, Thos. Hardie, M.D., to Isabella, daughter of the late Christopher Wood, Esq.

ROBERTS—ALEXANDER.—On the 14th ult., at Pinkieburn, Inveresk, N.B., Frederick T. Roberts, M.D., of Harley-street, Cavendish-square, W., to Elizabeth Lindsay, second daughter of the Rev. W. Lindsay Alexander, D.D., of Pinkieburn.

WEMYSS—MARTIN.—On the 22nd ult., at Broughty-Ferry, John Watson Wemyss, M.D., to Mary, daughter of the late Andrew Martin, Esq.

DEATHS.

EVANS.—On the 20th ult., D. P. Evans, M.B., of Belper, aged 53.

FRYER.—On the 27th of March, at Prospect House, Trowbridge, Thomas Fryer, M.R.C.S.E., L.S.A.L. For nearly fifty years practising at Redcliff-hill, Bristol.

GILES.—On the 17th ult., at High-street, Stourbridge, Francis Giles, M.R.C.S.E., aged 55.

GILL.—On the 24th ult., at Belper, Geo. Gill, Surgeon, aged 56.

OAKLEY.—On the 17th ult., at Northampton, Chas. Oakley, L.R.C.P.Ed., of Shrewsbury.

RANKINE.—On the 21st ult., at Porchester-terrace, Islington, Robt. Rankine, M.R.C.S.E., aged 80.

SAYERS.—On the 20th ult., at Charlemont-place, Dublin, J. B. Sayers, M.D., aged 83.

SERCOMBE.—On the 14th ult., at Gloucester-gardens, Hyde-park, Edwin Sercombe, M.R.C.S.E., aged 48.

STURKEY.—On the 6th ult., Henry G. Sturkey, L.R.C.P.Ed., of Highworth, aged 51.

TUKE.—On the 28th of March, at Week St. Mary, Cornwall, J. S. Tuke, L.F.P. & S. Glas., aged 43.

TYNDALL.—On the 17th ult., John Tyndall, L.K.Q.C.P.I., of Gorey, Co. Wexford, aged 67.

WHICHER.—On the 18th ult., at Landport, James Whicher, M.R.C.S.E., aged 80.

WILLAN.—On the 17th ult., at Weston, James R. Willan, L.F.P. & S. Glas., aged 33.

WYMAN.—On the 8th ult., Geo. Wyman, M.R.C.S.E., of Alcester, aged 64.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Sir James Paget: Clinical Lectures.
Dr. Taylor: Bone Syphilis in Children.
Dr. Loomis: Diseases of the Respiratory Organs.
Journal of Psychological Medicine.
Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques.
Mr. Smee: The Mind of Man.
White's Grammar School-Texts. Horace, Book III.
Rev. A. Irving: A Short Manual of Heat.
Messrs. Rigg and Goolden: Easy Introduction to Chemistry.
Bombay Medical Code, 1875.

Notes, Short Comments, and Answers to Correspondents.

AN ACT OF HEROISM.

MRS. MELLOR, of Langdale Claughton, showed promptitude and pluck in sucking the hand of a little child which had been bitten by a retriever supposed to have been mad. People are more ready to admire the conduct of Queen Eleanor in applying her lips to her husband's poisoned wound than to imitate her example; but to have recourse to this "ready method" in the case of a strange little child encountered in the street when bitten by a dog, displays no ordinary degree of moral courage and forgetfulness of self. Mrs. William Mellor, on hearing what had occurred, however, lost no time in descending from her carriage, and applying her lips to the wounded hand of the bitten child. It is to be regretted that no sooner does a dog bite anyone than madness is at once laid to his charge, and he is quickly destroyed, leaving the individual bitten and the relatives in a state of extreme suspense; but in the case of any poisoned wound an immediate recourse to sucking the part wounded is a very common and effective method of procedure; not, however, unattended with the risk of inoculating any trivial wound or fissure that may be present on the lips. Still this risk increases the credit due to Mrs. Mellor for her heroism.

Dr. Elizabeth Blackwell.—We have received the communication from New York. Without the slightest inclination to show any discourtesy to the lady, we must be excused from reverting to the subject again.

Mr. Mackay, (Sunderland.)—Perhaps it would be as well to let the matter alone.

RUMSEY TESTIMONIAL FUND.

At a meeting of the Committee held on Tuesday, April 20th, the following subscriptions were announced:—

B. St. John Ackers, Esq.	£50	0	0
Sneade Brown, Esq. ...	26	5	0
Cæsar H. Hawkins, Esq., F.R.S....	21	0	0
F. Sibson, M.D., F.R.S. ...	10	10	0
Sir James Paget, F.R.S. ...	10	10	0
J. Simon, Esq., F.R.S. ...	10	10	0
W. Farr, M.D., F.R.S. ...	10	10	0
Sir W. W. Gull, M.D., F.R.S.	10	0	0
Sir E. Lechmere	10	0	0
W. A. Greenhill, M.D. ...	10	0	0
Geo. Buchanan, M.D.... ...	5	5	0
B. Hill, Esq., M.B., F.R.C.S.	5	5	0
A. Smee, Esq., F.R.S. ...	5	5	0
R. Rawlinson, Esq., C.B. ...	5	5	0
W. H. Michael, Esq.	5	5	0
W. H. Corfield, M.A., M.D.	5	5	0
R. R. Gardner, Esq., M.P....	5	5	0
Sir W. Jenner, M.D., K.C.B.	5	5	0
E. C. Seaton, M.D.	5	5	0
A. Carpenter, M.D.	5	5	0
G. E. Paget, M.D., F.R.S....	5	5	0
A Grateful Friend	5	0	0
E. A. Parkes, M.D., F.R.S. .	5	0	0
Lieut.-Col. A. Rotton... ...	5	0	0
R. Ceely, Esq., F.R.C.S. ...	5	0	0
C. O. Baylis, M.D.	5	0	0
Right Hon. Lyon Playfair, C.B., M.P., F.R.S.	5	0	0
W. A. Guy, M.D., F.R.S. ...	5	0	0
Right Hon. Earl of Shaftesbury, K.G....	5	0	0
Right Hon. W. Cowper-Temple, M.P.	5	0	0
Miss Nightingale	3	3	0
A. P. Stewart, M.D.	3	3	0
J. Liddle, Esq.	2	2	0
W. Clode, Esq.	2	2	0
James Lewis, Esq.	1	1	0
C. W. Johnson, Esq.	1	1	0
C. Lingen, M.D.	1	1	0
J. T. Clover, Esq., F.R.C.S.	1	1	0
G. H. Philipson, M.A., M.D., Newcastle-on-Tyne	£5	5	0
J. Walker, Esq. Cheltenham	25	0	0
Dr. Kerr, ,, ...	10	10	0
Dr. Haviland, ,, ...	10	10	0
Baron de Ferriere, ,, ...	10	0	0
Dr. Rooke, ,, ...	5	5	0
W. M. Tarrtt, Esq., ,, ...	5	0	0
Dr. Williams, ,, ...	5	5	0
The Misses Cowell, ,, ...	5	5	0
Rev. W. W. Gedge, ,, ...	5	0	0
Rev. F. Poynder, ,, ...	5	5	0
Dr. Wilson. ,, ...	5	5	0
F. Longe, Esq., ,, ...	1	1	0
Dr. Smith, ,, ...	5	5	0
Dr. F. A. Smith, ,, ...	2	2	0
J. Middleton, Esq., ,, ...	5	5	0
Dr. Colledge, ,, ...	5	5	0
B. Tristram, Esq., ,, ...	5	4	0
Rev. Dr. Jex Blake, ,, ...	1	1	0
W. H. Gwinnett, Esq., ,, ...	5	5	0
B. Foster, M.D., Birmingham	2	2	0
P. H. Chavasse, Esq., Birmingham	3	3	0
Sir J. L. Bardsley, M.D., Manchester	10	0	0
E. Lund, Esq., F.R.C.S., Manchester	5	0	0
J. S. Metford, Esq., Bristol	0	5	0
J. T. Caddy, M.D., R.N., ,, ...	0	10	6
C. H. Fox, M.D., ,, ...	0	10	0
J. T. Bridgman, Esq., ,, ...	1	1	0
W. J. Fyffe, M.D., ,, ...	1	1	0
E. C. Board, Esq., ,, ...	1	1	0
F. Mason, Esq., Bath ...	1	1	0
J. S. Bartrum, Esq., F.R.C.S., J. P., Bath	1	1	0
R. S. Fowler, Esq., F.R.C.S., Bath	0	10	0
R. M'Donnell, M.D., F.R.S., Dublin	5	5	0
J. M'Donnell, M.D., Dublin	10	10	0

Subscriptions may be forwarded to Dr. Buchanan, New Government Offices, Whitehall; to the Honorary Secretary; or to Messrs. Robarts, Lubbock, and Co., Bankers, Lombard-street. Cheques should be made payable to the "Rumsey Testimonial Fund or bearer," and crossed "Robarts, Lubbock, and Co." Post-office orders should be drawn on the Carzon-street Post-office, and forwarded to the Honorary Secretary.

W. H. CORFIELD, Hon. Sec., 10, Bolton-row, May-fair, W.

Dr. Oliver, (Boston.)—We would advise our correspondent to communicate with the metropolitan hospital named by him. His letter would receive every attention.

SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—I observe in THE LANCET, dated December, 1874, an article, recommending the hypodermic injection of morphia in sea-sickness, by H. Bennet, M.D., in which he says: "I am not aware that its use, which I recommended many years ago, has been yet tried." Allow me to refer him to the *Medical Times* of April 10th, 1869. He will there see the first of a series of articles written by myself while crossing the Atlantic on board the Cunard ship *Alippo*. Whether Dr. Bennet may have written on the subject previous to this I am not aware.

Yours truly,

Chicago, March 23rd, 1875. THOMAS JOHNSTON.

THE DEVONPORT COMMISSIONERS AND THEIR MEDICAL OFFICER.

WE think all parties, the Board and their medical officer, are to be commended for the way in which the case of James Callings has been disposed of. We congratulate Dr. Wilson on his frankness and on his previous character for great attention to cases. The Board were right in discussing plainly the case; but they may rest assured that their discussion of it, and the pain which a naturally good and attentive medical officer feels when he has unintentionally neglected a poor patient, are sufficient guarantees against the recurrence of such an exceptional neglect.

Anxious.—We sympathise much with our correspondent in the circumstances, and should recommend to him the degree mentioned.

Mr. Robert Lawson, (Wakefield.)—The communication shall not be lost sight of.

PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—I should not have troubled you, your readers, or myself with a reply to Dr. Hassall's last letter but for the following statement which it contains:—

"Dr. Johnson's reference to the family of the patient would make it appear that they were parties to the treatment I have received. This is not so, however; for though I think they were to some extent to blame for acquiescing, through, they state, a want of knowledge of what constitutes professional etiquette, in Dr. Johnson's extraordinary request that I should be at once dismissed to make room for another, they have yet tendered me their expression of regret for the treatment to which I have been subjected at the sole instance of Dr. Johnson."

The facts thus misstated by Dr. Hassall I will relate as briefly as possible. The patient's wife wrote a short note to Dr. Hassall, presenting her compliments and enclosing a cheque for the fees which were due to him. The following note was received in reply:—

"Dr. Hassall presents his compliments to Mrs. ——, and begs to return the cheque which she forwarded at the request of Mr. ——. Dr. Hassall can well understand that Mr. —— should not be acquainted with professional usage and etiquette; but he thinks that Mr. ——'s own perception of what is right and becoming should have shown him that the treatment to which Dr. Hassall has been subjected, without the smallest fault on his part, is most unusual, and such as cannot be justified. Under these circumstances, and as Mrs. ——'s letter does not contain any apology or expression of regret for that treatment, he declines to accept the cheque which she enclosed."

After the receipt of that letter the lady called on Dr. Hassall and insisted upon his taking the cheque. In a letter with which she has favoured me she refers to that visit, and to Dr. Hassall's version of it, in the following terms:—

"I am certainly surprised that Dr. Hassall should have quoted me at all, the object of my calling upon him being simply to *re*-offer him the fee which he had refused, in doing which I expressed regret that he had been annoyed, but I neither felt called upon to apologise for ourselves or for the treatment he had received."

The lady told me, in conversation on this unpleasant subject, that "of course she regretted that *anyone* should have been annoyed on their account, but she neither said nor meant more than this."

I scarcely need ask whether Dr. Hassall improves his position by publishing an incorrect version of a private conversation. Perhaps, in the tumult of conflicting emotions, he has forgotten that the ignorance of professional etiquette which he puts forth as a confession made by the patient's family was, in fact, a suggested excuse condescendingly made for their misconduct in his own letter enclosing the rejected fee.

Dr. Hassall's notion of professional etiquette appears to be this—that a patient whom his medical advisers intended to place under the charge of Dr. Whitehead, having, through a misunderstanding, which has been fully explained, come under his own care, he claims a right to retain, and to abuse and misrepresent those who differ from him, and who cannot be induced by threats of public exposure to make an abject apology or to admit that he has just cause for complaint. I should hope that Dr. Hassall is the only member of the Royal College of Physicians so wanting in self-respect as to wish to retain the charge of a patient after he had been told that his having been called in was the result of a mistake.

Dr. Hassall is welcome to the admission that the fact of his being a physician, and not a general practitioner, was neither the only nor the chief reason why Dr. Whitehead was preferred. It is doubtful whether Dr. Hassall would have been more pleased with me than he now is, if, in response to his repeated provocation, I had publicly stated all the reasons which induced, not me only, as Dr. Hassall again untruly states, but also Mr. Plunkett, to adhere to our original determination to place our patient under the care of Dr. Whitehead.

In concluding my share in this discussion, I venture to offer Dr. Hassall one piece of advice. If ever again he should wish for an explanation of any matter which has given him offence, let him not demand an apology at the point of the bayonet. He should bear in mind that an opponent who is not terrified by angry threats is likely to be made obstinately reticent thereby.

If Dr. Hassall had not joined the bitter east wind in assailing me on the railway platform at Ventnor, the course of events might have been very different. I might have paid him a polite explanatory visit, and this petty personal controversy need not have arisen.

I am, Sir, your obedient servant,

Savile-row, April 27th, 1875. GEORGE JOHNSON.

*** As we have now given both Dr. Hassall and Dr. Johnson full opportunity to state their respective views on this unpleasant controversy, we must be excused for saying that the correspondence, in so far as our columns are concerned, must now cease.—ED. L.

"LIFE OF SYME."

WE have received a letter from Dr. James C. L. Carson, J.P. for Coleraine, Ireland, in which he calls attention to Dr. Patterson's "Life of Professor Syme." A perusal of the work in question has given Dr. Carson so much pleasure that he cannot refrain from endeavouring to influence others to read it. Our correspondent's eulogistic remarks are fully justified. A review of the book appeared some time ago in our columns.

Dr. Dowse.—Soon, if possible. It has not been forgotten.

A Medical Officer, (Saugor, Central India.) — We have received communications containing proposals similar to those of our correspondent. We believe the practice inculcated, however, to be illegal; at any rate, the public generally, as well as the authorities, are opposed to making any method of medical treatment, however simple, subservient to the purpose alluded to. A great deal of nonsense and false sentimentality was no doubt introduced into the discussion of this very subject some years ago; still we do not think it consistent with the dignity or the duty of our profession to make any suggestion in a matter about which medical officers only reaped undeserved blame previously. We cannot see any objection to having every soldier, from the field-marshal to the trumpeter, marked in some way for the purpose of identification; and if the practice were universal, there would be nothing undignified or degrading in submitting to it.

Mr. Forward, (Axminster.) — Our correspondent will find, on referring to our last issue (p. 595), that the mistake has been rectified.

Dr. Wiltshire is thanked for his courtesy.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—With reference to the Medical Department of the Army there are two questions: the first one, to do justice to, and act with liberality towards, the officers; the second, to reorganise it, and make it thoroughly efficient in peace and war.

The first question is simple of execution, particularly so when the traditional English love of fair play is not eliminated from it. It can and should be settled at once.

The second is complex, requires considerable thought, and the collected experience of officers who have served under various conditions in many climates to elaborate it.

Since the undigested reorganisation of 1873, the soldiers of the army have not suffered, because the medical officers have done their duty for conscience' sake, but not tamely, as the numberless letters in your columns can testify. There is an old saying about the disagreement of doctors, so when they all agree on a fatal issue the patient must be bad indeed. In this case the civilian doctors—we cannot thank them sufficiently for their able advocacy of our cause—agree with the military that the department has been very badly treated, and is likely to die. The following remedies, quickly administered, will give it new life and energy to work out any scheme of reorganisation which may be deemed most serviceable to the State.

1stly. Restore to all medical officers who entered the service before March, 1873, the privileges conferred by former Royal Warrants, *unaffected* by *any* special circular. *In future no special circular to have power to abrogate the provisions of a Royal Warrant.*

2ndly. That all medical officers, not regimental officers commissioned as such on the strength of their regiments, be entitled to staff pay *and allowances*, and *not be liable* to mess or other contributions.

3rdly. That all regimental officers who have been removed in an arbitrary manner from their regiments be compensated for their losses.

4thly. That leave of absence, sick leave, and liberty to exchange be secured to medical officers to the same extent and in the same manner as they are secured to combatant officers.

So far for simple justice and fair play. Now for liberality with a spice of justice.

1stly. The grant to the army medical service of the same retirement scheme which now exists in the naval would cause a flow of promotion, which, considering the old teaching of the department, might be very beneficial to the working of any new organisation. If retirement at sixty years of age will not be sufficient to bring more active men to the front, a bonus to old surgeon-majors could be added to clear the way.

2ndly. That for extra and financial duties, such as the charge of general and station hospitals, some of which must be provided for in any perfect system of army hospitals, staff allowance in proportion to responsibility be granted.

3rdly. Considering that military surgeons are in hourly contact with soldiers, and therefore must and do use military command over them, that they share their marches and bivouacs, and, owing to the greater range of modern missiles, that they must always be under fire in action, their department should be classed as a military, not a civilian department, and placed as such in the Army List; it being distinctly laid down that medical officers could not exercise any command beyond the precincts of their hospitals, but within their limits the senior medical officer to command everyone except the officer in supreme command, whose orders all must obey. This rule cannot impede military operations, because, by the Geneva Convention, where the Red Cross flies is neutral ground; should the General elect otherwise, he can strike the flag.

4thly. On mixed boards, medical officers should sit according to the date of their commissions; for their opinions are, as a rule, adopted. To this there can be no objection but the sentimental one, which makes surgeon-majors of over twenty years' service rank after *all* other lieutenant-colonels, military or civil, "except for choice of quarters."

I am, Sir, your obedient servant,

April, 1875. FAIR PLAY.

S. A.—Our correspondent need not be under any apprehension. There are no physiological objections to such a dietetic practice. The paragraph enclosed is unworthy of serious attention.

Mr. W. L. Lang.—We never recommend a particular physician or surgeon.

PRURIGO ANI.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "Delta," I beg to say that the treatment I have found most efficacious in prurigo ani when uncomplicated with hæmorrhoids, ascarides, &c., is the frequent application of the following lotion:—Solution of acetate of lead and tincture of opium, of each three drachms; dilute hydrocyanic acid, one drachm; glycerine, one ounce; distilled water to eight ounces. At the same time the patient should be advised to use frequent ablutions of tepid soap-and-water during the day. A regular action of the bowels should be maintained by some gentle laxative, and a simple tonic with unstimulating diet prescribed.—Yours truly,

Coatham, Redcar, Yorks, April 24th, 1875. L.R.C.P.

Mr. Thomas Edis is right in his view of the case. When the gentleman who insists on keeping the case mentioned is away, and Mr. Edis is sent for to see one of his patients, and he goes and acts as *locum tenens*, cheerfully resigning the case on the return of his neighbour, he will be doing quite rightly, and overcoming "evil with good."

Rev. J. K. Bailey.—There is no special institution in this country for the treatment of the affection named. It would not be very difficult to get the patient into a general hospital.

THE communication of *Prof. Andrew Buchanan* (Glasgow University) shall appear next week.

PUERPERAL FEVER.

To the Editor of THE LANCET.

SIR,—I read with very great interest Mr. Spencer Wells's address delivered before the Obstetrical Society of London, as reported in your journal of April 17th, and immediately determined to lay before you the history of three cases of puerperal fever which occurred in my practice in the year 1872.

It has been said that country practitioners have excellent opportunities of ascertaining the exact cause of this disease when it happens to come under their notice and care. Now, this may or may not be the case generally; but, as one of the number, I hope to be able to prove conclusively that in these three instances, unfortunately met with in three hundred confinements which I have attended for the last four years, the cause was not far to seek.

Well, then, from February 4th to March 2nd, 1872, I daily visited a family, the members of which, with one or two exceptions, suffered from continued fever. On the last-mentioned date the mother of the family, Mrs. M——, who, like the others, had fever, was confined prematurely of twins (seventh month). She was suffering from fever at the time, and after her confinement manifested unmistakable symptoms of puerperal fever, so called. By the 29th of April all my patients (five in number) were out of danger, the mother having made an excellent recovery. This family lived four miles from me.

Up to the 7th of May I had no puerperal fever in my practice, though I attended twenty confinements, all of which did quite well, five of them being primiparæ. Now, on this date (May 7th) I was summoned to attend Mrs. H——, who resided about 200 yards from the family above mentioned, Mrs. H——'s being a first case. After satisfying myself that the presentation &c. were favourable, I strolled out and called upon my late patients, who were barely convalescent, remained some time in the house, and returned directly to my confinement. In due time my work was at an end. The labour was a natural one; mother and child quite strong and healthy. On the fourth day after the confinement I had to inform the nurse that Mrs. H—— was not doing so well as I could wish, and that I suspected lying-in fever. On the following day the symptoms of puerperal fever were well marked. In time it proved a severe attack, which, however, terminated favourably.

On the 10th of May I was called to attend Mrs. C——, also a primipara, to whom I ever, without the slightest hesitation, I carried the puerperal poison. The fever rapidly developed, was severe in character, as in the last-mentioned case, but to my great satisfaction did not prove fatal.

Now, Sir, to my mind, these three cases are intimately connected the one with the other. Between the first and second lies, you may suspect, a weak link in the chain of causation. I have asked myself the question: "Could I by visiting the first family, and going directly to my confinement, have carried with me the poison (of whatever nature), which, when brought into contact with a puerperal woman, was sufficient to cause this so-called puerperal fever?" I do not wish to lay myself open to the charge of presumption by endeavouring to teach you that this question should be answered in the affirmative; but I trust you will not, on the other hand, consider my credulity weak and excessive when I confess that I cannot rid myself of the belief that I was the unfortunate cause of the whole mischief.

One other interesting fact allow me to notice. On December 18th, 1873, Mrs. H—— was confined for the second time. The placenta was adherent, and forcible extraction was found necessary. She was attacked with puerperal peritonitis, but in the end did well, and was able to suckle her child. Mrs. C—— also was confined, and escaped all untoward accident.

I am, Sir, your obedient servant,

N.B., April 21st, 1875. P. M.

APPEAL ON BEHALF OF THE FAMILY OF THE LATE MR. THOMAS, OF ETWALL.

MR. FRED. WILKINS, Barwood Hill, Burton-on-Trent, will act as Treasurer to this Fund, and subscriptions should be sent to him without delay.

Mr. Wilkins acknowledges the receipt of £2 from Mr. J. Smellie, Nouville.

W. C. A.—With pleasure.

URINARY DEPOSITS.

To the Editor of THE LANCET.

SIR,—I am an old man, aged seventy-seven. Twenty years back I was an active medical practitioner, and it strikes me that from the relation of my own case a useful hint may be drawn. For a very long time I have been largely passing urates, kept only in subjection by bicarbonate of potass, two scruples, taken two or three times a day. Six weeks since, from a slight error in diet, I had great thirst in the night, and emptied the water-bottle in my dressing-room, containing nearly one pint. Next morning I was surprised not to see the urine muddy. I have since discontinued the alkali, and drank more fluid. The muddiness has entirely ceased to appear. Micturition was frequent and painful in passing the last drops; this, too, has very much ceased to happen. My notion is, and here comes my hint, that from drinking little fluid the urine became concentrated and acrid, and so irritated the mucous membrane. May not this be the cause of relief, and may not the good from lithia-water and potash-water be from their acting more as diluents than as medicaments? Mind, Sir, I only say, "may."

Yours &c.,

April, 1875. SENEX.

Mr. G. A. J. Muir.—Such a degree is not necessary. The possessor of a surgical and a medical qualification is entitled to enter the service by competitive examination.

Union Doctor.—We think the medical man has a good case for the County Court against the overseer.

X. Y. Z.—To the Colonial Office, Whitehall, S.W.

A Country Vaccinator.—The law only fixes the minimum fees, which are such as our correspondent mentions as intended in the new contract. Such fees are in some districts essentially inadequate.

PHASES OF MEDICAL PRACTICE IN INDIA.

To the Editor of THE LANCET.

SIR,—I beg to send you a few notes of cases met with in daily practice here, as they may be interesting to home readers.

On February 6th, 1875, a native, aged about sixty-five years, was brought to me by the police in a litter for examination. He complained of great pains in his left hip-joint and thigh, inability to move it or stand on it, stating that he had been beaten with a bamboo or cothee. There were no marks of injury externally. At first sight it appeared an undoubted case of intra-capsular fracture—a want of fulness in the hip; limb shortened and everted, well seen when the patient was held up; no crepitus could be detected. I gave my opinion, after some hesitation, that there was no fracture, but could not satisfactorily account to myself for the signs. The patient was then removed to the Charity Hospital, and I did not see him till the 18th of February, when his body was brought for examination. It was much emaciated; brain normal; lungs adherent on both sides, and much congested; fatty degeneration of heart; liver and spleen, as usual in natives, enlarged and congested; extensive inflammation and ulceration of rectum; and there was extensive caries of the great trochanter and neck of the femur, evidently of some standing, which amply accounted for the signs of intra-capsular fracture.

On the 8th of February, 1875, I made a post-mortem examination of the body of a native woman. There was nothing to account for death, save that in the trachea I found a live round worm about eight inches long; the tracheal mucous membrane and surrounding parts were much inflamed and congested. I was of opinion death was due to this, causing asphyxia.

The numerous cases of rape and unnatural offences that present themselves are often a source of much difficulty to the surgeon's arriving at a correct decision, as too much stress must not be laid upon even the symptoms present, owing to the natural laxity of the parts, and the precocious habits of the natives; so that it is highly desirable in every case that the medical officer should make himself acquainted with all the collateral evidence obtainable in the case, and not base his decision on the medical appearances alone.

Two instances have lately come to my notice of children having contracted syphilis from old prostitutes, the latter thinking that by intercourse with such they would be cured. Such a belief I know obtains even at home. One of the cases, after some trouble, was clearly proved against the woman, and the matter reported to the proper authorities; but no action was taken by them, which I much regretted, as I was informed that similar cases are not infrequent in the bazaars, the children being enticed by presents of sweetmeats or money.

Suicide is not at all uncommon amongst natives, especially the women, who on very slight provocation make away with themselves; but the method varies in different parts. In Lower Bengal, hanging is commonly resorted to; in Behar, opium is swallowed, being readily procurable; while in the North-West, drowning is more in vogue.

Cases of unreduced dislocation of old standing are very common, chiefly of the elbow, wrist, and ankle joints; no proper medical aid having been at hand, or, what is more usual, the native has left it to chance and nature, their own practitioners being generally very ignorant of surgery. In several cases that have lately come under my notice, the limb has only been tightly bandaged over the seat of fracture, thereby very seriously endangering the safety of the patient's life and limb.

The hot weather is fast approaching; but as far as I have heard, except a few sporadic cases of cholera, the country generally is fairly healthy.

I remain, Sir, yours truly,

Allahabad, March 20th, 1875. H. HOLMES, B.A., M.D., M.R.C.S.L.

Dr. Reginald Eager.—It would be contrary to our custom to insert such a notice as that forwarded by our correspondent. An advertisement would probably answer every purpose.

THE DAVEY DEFENCE FUND.

FURTHER contributions received on behalf of the above Fund:—

Amount previously announced... ... £708 14 6

Dr. Bunting, Tottenham ...	£0	10	6
E. H. Carter, Esq., Chelmsford	1	1	0
Dr. J. Moorhead, Weymouth	1	1	0
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Dr. J. W. Begbie, Edinburgh...	2	2	0
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Dr. J. K. Sampson, Abbotsfield	1	1	0
Dr. S. W. Winckworth and Friend, Brighton	1	0	0

CROUP AND DIPHTHERIA IN THE LOWER ANIMALS.

WE have received letters on this subject from Dr. George Johnson and Mr. Fleming, the publication of which we are compelled to defer until our next issue.

Mr. W. G. Burroughs.—If our correspondent will apply to Mr. Carsten Holthouse, 3, George-street, Hanover-square, we have no doubt he will obtain the information he wants.

GOVERNMENT VACCINE.

To the Editor of THE LANCET.

SIR,—I should like to know the opinion of my fellow-subscribers to THE LANCET as to the value of the vaccine lymph received on application from the National Establishment. Having many times found that the results following its use have been either negative or very slight compared with those obtained from my own often imperfectly filled tubes, I might have possibly attributed this to my want of expertness as a vaccinator; but I feel convinced that this is not the case, having heard similar complaints from other practitioners. The tubes always appear thoroughly well filled, and the matter of the clearest nature. One cannot help feeling glad to be able to obtain a supply "gratis" in time of need; but it is disappointing at times to meet with the result I have stated.—Yours obediently,

April 16th, 1875. A COUNTRY PUBLIC VACCINATOR.

ERRATUM.—In Mr. Franklyn's letter on "Bone-setting," published in our last issue, page 597, line 20 from bottom of column, for "disease," read *disuse*.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. T. Holmes, London; Dr. Geo. Johnson, London; Mr. Lister; Dr. Moxon, London; Dr. Wiltshire, London; Mr. Oliver Pemberton; Mr. Fleming, Chatham; Mr. Read, London; Dr. Richardson, Philadelphia; Dr. Broadbent, London; Mr. Robinson, Dublin; Mr. Boger, London; Mr. Skerritt, London; Mr. Thornton, London; Dr. Hassall, Ventnor; Mr. Walker, St. Andrews; Rev. G. B. Sayers, Dublin; Mr. Franklyn; Mr. Parkinson; Mr. Mackay, Sunderland; Mr. Ayres, Greenwich; Mr. Balding; Dr. Gairdner, Glasgow; Mr. Reeves; Dr. Carson, Coleraine; Mr. Piggott, Redcar; Dr. Pierson, Dresden; Dr. Shearman, Rotherham; Dr. Blackwell, London; Dr. Jacobi, New York; Dr. Bishop, Edinburgh; Mr. Paul; Mr. Winchester, London; Dr. Oliver, Boston, U.S.; Mr. Kirby Smith; Mrs. Cox; Mr. O'Connor, Chatteris; Mr. Reilly, Hackney; Mr. Lawson, Wakefield; Mr. Wilkins, Burton-on-Trent; Mr. Alexander, London; Dr. Cumming, Hastings; Rev. J. K. Bealey; Mr. Raines, C.B.; Dr. Mackintosh, Chesterfield; Mr. Dix, Hull; Dr. Arnison, Newcastle-on-Tyne; Mr. Webber, London; Dr. Will, Aberdeen; Mr. Wynne, London; Mr. Carolan, Great Clacton; Mr. Freeman, London; Mr. Crowe, Hartlepool; Messrs. Ferris and Co., Bristol; Dr. Muir, Ardrossan; Messrs. Oliver and Boyd, Edinburgh; Dr. Mason, Sheffield; Mr. Young, Lesmahagow; Mr. Jesse, Macclesfield; Dr. Jennings, Potts Grove, U.S.; Dr. Beamish, Enniskean; Mr. Abbott, London; Mr. Toller, Barnstaple; Dr. Madge, London; Dr. Nicholas, Wandsworth; Mr. Morris, London; Mr. Reeves, London; Mr. Holden, Liverpool; Dr. Crow, Kildrummy; Mr. Sawyer, Birmingham; Mr. Fryer, Trowbridge; Mr. Simmons, Wotton-under-Edge; Mr. Anderson, Birkenhead; Mrs. Richards, Redruth; Mr. Richardson, Battersea; Mr. Roberts, Bicton; Mr. Simpson, Cardiff; Mr. Smith, Sudbury; Mr. Gilligan, Manchester; Mr. Horder, Wood Green; Mr. Hawkes, Launceston; Dr. Hall, Woolwich; Rev. W. Purton, London; Mr. Forward, Axminster; Mr. Trott, Southsea; Mr. Davidson, Birkenhead; Dr. Bowstead, Calstor; Dr. Batho, Saugor, Central India; Dr. Alexander, Liverpool; Dr. Dowse, Holloway; Mr. Franklin, Newcastle; Mr. Taylor, New Seaham; Dr. Blandford, London; Messrs. Richardson and Co., Leicester; Mrs. Theobald, Leicester; Mr. Smith, Greenwich; Dr. Hemming, Abingdon; Messrs. Mead & Son, London; Beta; Inquisitive; A Country Vaccinator; Un Pauvre Diable; Prudence; The Editor of the *Liverpool Daily Post*; Fact; A Visitor; Anxious; M.R.C.S.; W. B.; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. Evans, West Bromwich; Mr. Pearce, Wisbeach; Mr. Baker, York; Mr. Ernst, London; Mr. Edwards, Wandsworth-road; Mr. Hey, Leeds; Dr. Dougall, Glasgow; Dr. Tate, Woodbridge; Mr. Cornish, Manchester; Mr. Andrew, Haverstock-hill; Mr. Gwynne, Dorchester; Messrs. Pearson and Co., Edinburgh; Mr. Legge, Aberdeen; Mr. Fawcett, Morebath; Dr. Davidson, Aberdeen; Mr. Rumsey, Mere; Mr. Ormond, Wantage; Dr. Clegg, Bacup; Mr. Barrett, Welshpool; Mr. Barling, Newnham; Mr. Dempsey, Aldbury; Mr. Forsyth, Harrogate; Mr. Brett, Bridlington; Mr. Brend, Bushey; Dr. Akerman, London; Mr. Highton, Brighton; Mr. Walker, Crick; Mr. Dewar, London; Mr. Newington, Goudhurst; Mrs. Bishop, Banbury; Mrs. Beath, Curragh; Mr. Doughty, Wollaston; Mr. Reilly, New Cross; Mr. Clayton, Leeds; Mr. Brodribb, Caterham; Mrs. Hunter, New Wandsworth; Mr. Brendon, Hackney; Mr. Lewis, Eastbourne; Dr. Coleman, Wolverhampton; Mr. M'Gowan, Manchester; Mr. Morley, Addiscombe; Mr. Stuckey, London; Mrs. Mackey, Southampton; Dr. Curran, Mansfield; Dr. Peart, North Shields; Dr. Hogg, Margate; Mr. Mulligan, Liverpool; Mr. Morris, Liverpool; Mr. Williams, Abertillery; Mr. Collins, Wednesbury; Mr. Burroughs, Weston Zoyland; Dr. Hargreaves, Sheffield; Messrs. Beaman and Johnston, Wigan; Mr. Williams, London; A. B. C., Aberaman; X. Y. Z., London; B. B., London; A. B., Rugby.

Newcastle Daily Chronicle, Western Morning News, Leeds Mercury, Surrey Advertiser, Local Government Chronicle, East London Observer, Manchester Guardian, Scotsman, Ludlow Advertiser, Chorley Standard, Cork Constitution, Huddersfield Chronicle, Isle of Man Times, Barrow Daily News, Sunderland Echo, Macclesfield Courier, and *Derbyshire Times* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, APRIL 29TH, 1875.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
Apr. 23	29·97	N.E.	37	41	...	53	37	0·03	Fine
„ 24	30·22	E.	37	43	...	53	36	...	Overcast
„ 25	30·29	S.W.	40	45	...	57	34	...	Foggy
„ 26	30·21	W.	41	47	0·1	51	38	...	Overcast
„ 27	30·04	S.	47	53	19·3	70	45	...	Fine
„ 28	30·14	W.	40	52	10·1	72	40	...	Fine
„ 29	30·16	W.	48	53	...	...	47	...	Fine

Medical Diary for the ensuing Week.

Monday, May 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—2 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M.

Tuesday, May 4.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gladstone, "On Chemical Force."
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. Adjourned Debate on the "Germ Theory of Disease," being a discussion on the Relation of Bacteria and Allied Organisms to Virulent Inflammations and Specific Contagious Fevers."

Wednesday, May 5.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Adjourned Discussion on the "Relation of Puerperal Fever to the Infective Diseases and Pyæmia." The debate will be resumed by Dr. Barnes.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. H. J. Slack, "On the Relation of Angular Aperture to Surface Markings and Accurate Vision."

Thursday, May 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Seeley, "On the Fossil Forms of Flying Animals."
HARVEIAN SOCIETY OF LONDON.—8 P.M. Mr. Teevan, "On Urinary Affections of Children."

Friday, May 7.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—8 P.M. Evening Meeting.—9 P.M. Prof. Cornu (Ecole Polytechnique), "On the Velocity of Light."

Saturday, May 8.

ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. The Rev. Mark Pattison: "A Chapter of University History."

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can only be forwarded as book packets, and *prepaid* as such.

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The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—
Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.